# <u>Challenges</u>

Asia Pacific Open Championships – FIRST Australia Each FIRST LEGO League partner [from 2020 invited regions] will receive a Google form link for pre-registration to be forwarded to qualified/invited teams. Teams should plan to arrive in Sydney the night before. Other details from the site.

Australian and New Zealand Brain Bee Challenge Motivates young people to learn about the brain. Created to inspire students to pursue careers in neuroscience research. A test of knowledge about important facts concerning intelligence, memory, emotions, sensations, movement, stress, ageing, sleep, Alzheimer's disease and stroke. Round 1 in Schools, Round 2 is at State/Region Level. Round 3 is National. Organised for Year 10 students.

Australian International Model Solar Challenge Tens of thousands of Australian high school and primary students have participated in this hands-on science program. In addition to the main challenge, there are also state events found in the links below. Registrations [boats and cars] usually close in November. Regional events are usually held from August on. The Australian-International Model Solar Challenge is usually held in late November or early December. Exact dates once these are advised.

<u>Destination Imagination</u> We offer seven different academic Challenges in areas of STEM [science, technology, engineering and mathematics], fine arts, service learning, and early learning. Check in July to download our First Look Document and watch our Challenge Preview videos. Details can be found in the <u>First Look</u> book available here.

<u>First Lego League [Australia]</u> Every September, FLL releases a Challenge, which is based on a real-world scientific topic. Each Challenge has two parts: the Robot Game and the Project. The Australian part of an international group found at <u>The Challenge - FIRST LEGO League</u>. Regional and State Competitions are held first. National Championship usually held in early December. Exact dates once these are advised.

FIRST Tech Challenge Designed for high school students to compete head to head, using a sports model. Teams are responsible for designing, building, and programming their robots to compete in an alliance format against other teams. Through Macquarie University and FIRST Australia. Qualifying events usually held in the last quarter of the year. National event held in December. Exact dates once these are advised.

Global Cardboard Challenge Celebrates child creativity and the role communities can play in fostering it. Kids of all ages are invited to build anything they can dream up using cardboard, recycled materials and imagination. Resources available from the site. [USA, but done in 46 countries.] 'Cardboard Challenges can take place any time of year in any context'. However, the main Challenge is usually held in the last quarter of the year. Exact dates once these are advised.

Illuminate:nextgen Challenge
The illuminate:nextgen Challenge is mapped to national vocational outcomes and fully aligned with the Australian Curriculum at the Years 9 & 10 level. Not only will your students be given an opportunity to showcase the entrepreneurial skills they have developed in the challenge, but they will also learn useful skills around Critical thinking, Creativity, Problem solving, Digital & financial literacy, Public speaking & presentation skills, organisation & perseverance and Working in a collaborative team environment. State venues and dates can be found through links on this page. Dates previously ran over the period from the end of May to early December depending on the venue. Register Interest in Upcoming Programs Near You using this page.

International Mathematical Modeling Challenge [IM<sup>2</sup>C] ACER. A new team-based mathematical competition for Australian secondary students. Operating in teams, comprising up to four students from the same school, participants must work collaboratively to solve a problem [set globally] by devising and applying an original mathematical model. All details on the site.

Kronosaurus Korner School Challenge This year's Challenge is a 2-part challenge. The task in each part is designed to appeal to a range of students. A wide range of outcomes are possible and anticipated. That is why the same challenge is to be presented to Junior [Gr 5-6], Intermediate [Gr 7] and Senior [Gr 8-9] teams. 'You may start the Challenge whenever you wish. Teams must submit their work to you no more than one month after starting the Challenge. Deadline for submissions is normally in October. Exact date once this is advised.

<u>Mathematics Challenge for Young Australians</u> Targets the top 20 per cent of primary students in Years 5 and 6 [also 3 and 4 in the Challenge Stage], and secondary students in Years 7 to 10. Registrations start in February. Exact dates once these are advised.

MS Readathon A Reading Challenge supporting a charity. Four age groupings 0-6, 7-12, 13-17, 18 and Above. All details on their site. Read as much as you can throughout August. Sponsorship money normally needed before the end of October. Exact dates once these are advised.

National Computer Science School Challenge Online programming Challenge for high school students, run by the School of Information Technologies at the University of Sydney and NICTA. Unlike any other programming competition because we will teach you how to program as you compete. Beginning dates for the following: Python Challenge, Web Comp [2 events], NCSS, Code Quest and Hour of Code are found on this page. Further details will be provided by them nearer these dates.

<u>National Family Reading Month</u> Scholastic. The Challenge is open to students, Scholastic Book Club Organisers and Teachers from registered participating schools in Australia. Scroll down the page to get details. Exact dates once these are advised.

National History Challenge Encourages students to use research and inquiry-based learning to discover more about the past. Students from Primary years to Year 12, 19 years of age or younger in Australian schools. Register on the site to receive

an information kit. Submit your entry using the form on the site. Exact dates once these are advised.

NSW Premier's Reading Challenge The Challenge aims to encourage a love of reading for leisure and pleasure in students, and to enable them to experience quality literature. It is not a competition but a challenge to each student to read, to read more and to read more widely. There is now a separate <a href="Student's Page">Student's Page</a> as well as the main page. The challenge usually begins early in March and closes in August. Exact dates once these are advised.

NSW Premier's Sporting Challenge A range of initiatives with one common purpose - to have more students, more active, more of the time! Usually the school principal will receive a registration email at the commencement of Term 1. The [10 week] Challenge period commences any time after registration but must conclude by the last week of Term 3 to allow for award certificates to be printed and distributed to schools. Awards received in December.

<u>Science and Engineering Challenge</u> The Challenge is designed to inspire students to study science and engineering at a senior level. Each day the students participate in a range of exciting hands-on activities. State details will be found on the <u>Events</u> page. The National Final usually occurs in October. Exact date once this is advised.

<u>Space Design Competitions Australia</u> Hosts a number of industry simulation experiences for school students. These combine elements of Science, Technology, Engineering and Mathematics [STEM], with an emphasis on teamwork, marketing, and human relations to provide a unique set of challenges for young people. Exact date once this is advised.

<u>STEM Video Game Challenge</u> The Challenge is open to upper primary and secondary school students. Students are encouraged to design, build and submit an original educational video game that includes science, technology, engineering and mathematics [STEM] content or themes. Years 5-12. Dates once these are advised.

Student Blogging Challenge The Student Blogging Challenge is about embracing all of the benefits of blogging — from learning digital writing skills, and digital citizenship, to developing an authentic audience and connecting with others around the globe. The challenge is made up of a series of 10 weekly tasks all designed to improve blogging and commenting skills, while connecting students with a global audience. The challenge is totally free and is open to both classes and individual student bloggers from all over the world. The challenge is open to all age groups [K-12] worldwide. However, it is most suitable for ages 8 to 16. The Student Blogging Challenge runs twice yearly, beginning each March and October. The next challenge will begin in early March. Registrations will open in February and runs for 8 weeks. Exact dates once these are advised.

<u>Suncorp ESSI Money Challenge</u> We're turning the normal ESSI Money game that is played all year round into a national competition for two weeks! Students compete in one of two age brackets: 12-15 or 16-18. The 3 highest scores in each age category will be the winners. All other details including registration process and form available from the site. Download the App from the above site. Activity only runs for

two weeks each year. Details from the site. Find information on **ESSI Money and ESSI Money PLUS** here. These are alternate activities.

The Game Changer Challenge The Game Changer Challenge will connect primary and high school students from across NSW with leading education technology and design thinking professionals to solve the big question - how can tomorrow's schools help create the future? Exact dates once these are advised.

The Quest [Brainways] Each year, inspired by a different overarching theme, the Quest incorporates the main disciplines of Mathematics, Sciences and Humanities in a journey of discovery. The Quest Preliminary Challenge is offered over two days. In partnership with several universities, the Quest Challenge is offered in Australia and Internationally. The first step is to nominate your school and be endorsed by a teacher at the school. Registration details for various regions and types of activities are found via the site.

The Schools Recycle Right Challenge There are a wide variety of activities and events that your school can get involved in as part of the Schools Recycle Right Challenge. The amount of organising and preparation required will depend on the activities you decide to arrange. We provide free recycling activity guides, lesson plans and Australian school event ideas, designed to engage students and teachers to learn by doing and having fun! Our Getting Started Guide will help you plan and promote your Schools Recycle Right Challenge activities. Previously began in early October and finished in mid-November. Exact dates once these are advised.

<u>Wakakirri</u> The ultimate performing and visual arts challenge for schools. There are several Challenges which form part of this: <u>Dance School Challenge</u> Both Dance school groups and Community Groups can enter this competition. Full details from the home page. <u>National Screen Challenge</u> The Wakakirri Screen Challenge is inspired by Story Dance but allows schools to take their performance to another level by taking it off the stage and onto the screen. <u>Secondary School Challenge</u> The Wakakirri Secondary School Challenge is an opportunity for students to explore career pathways in Performing and Creative Arts, Design, and Event Management.

<u>Wombat Books Illustration Challenge</u> Entrants must be aged between 7-18 years and school age. For students finishing Year 12 in 2019 they must submit while they are still at school. Children must have parental permission to be considered for the challenge. All other details available from the site.

# Competitions and Activities

# Arts, Drama, Dance, Filming, Photography, Visual Arts, 3D Animation and Gaming

AFTRS Upcoming Courses Our courses are the perfect way to learn new skills, have fun and make new friends and are taught by industry professionals at AFTRS' state-of-the-art film, TV and radio studios in Sydney. Our courses are the perfect way to learn new skills, have fun and make new friends and are taught by industry professionals at AFTRS' state-of-the-art film, TV and radio studios in Sydney. We run a wide variety of school holiday courses for both kids and teens throughout all of the school holidays. With a constantly evolving suite of courses in filmmaking, digital animation, stop motion, game design, screenwriting, screen acting, screen auditions and radio, have a creative experience never to forget.

AIE School Holiday Courses Introduction to 3D Animation and/or Game Programming.

<u>AIT After School Film and Animation Workshops</u> Learn about careers and study options in film production, 3D animation, digital media, game design, mobile apps and IT.

ANZANG Nature Photographer All photographs must be of natural fauna, flora or natural land formations and must have been taken in the ANZANG bioregion. ANZANG bioregion means Australia, New Zealand, Antarctica and the New Guinea region. Entries in all sections are invited from photographers who use either digital or film cameras. Overall winner: \$10,000 cash and a holiday for two persons.

Arts Unit provides a state wide infrastructure for arts education. It delivers programs in dance, drama, music, visual arts, debating, public speaking, reading, spelling and special events. Annually more than 44,000 students and 6,000 teachers directly participate in The Arts Unit's programs and an additional 433,000 students access these programs.

<u>ATOM Photo Competition</u> The ATOM Photo Comp is an initiative of Australian Teachers of Media (ATOM). It provides Australian and New Zealand student and adult photographers with the opportunity to submit a set of three (3) photographs adhering to a theme and win fantastic prizes in the process.

Australian Geographic Nature Photographer of the Year Junior section where the entrant must be under 18 years of age at the date of close of entries. Entries must fit the criteria of any of the other nine categories. Categories available on the site.

<u>Doodle 4 Google</u> Doodles will be judged based on the following three categories: Artistic Merit, Creativity and Theme Communication. The winning doodle will be hosted on Google Australia's homepage at www.google.com.au for 24 hours plus \$10,000 worth of technology equipment for their school, Chromebook for the

National winner in addition to the Nexus Tablet that they receive as a national year group winner.

<u>Film, TV & Radio Short Courses</u> Learn new skills and invest in your future at the Australian Film Television and Radio School with our intensive courses. All courses are five days and are taught by industry professionals.

FlickerUp National competition for primary and secondary school students or film-makers under 18 years old'. Part of Flickerfest. Selected films for FlickerUp screened in January. Entries for the competition previously opened in July and closed in November. Exact dates for the next competition once these are advised.

<u>Future Leaders Photography Prize</u> Year 12 students are invited to submit digital photographic work [one photograph for each student]. The work submitted can be on any theme. Submissions must include Student's Name, School and Year Level.

Head On Photo Awards Student Prize The Head On Student Prize is open to Australia's young photographers [School years K-12]. Images must be produced by a photographic device which captures images [phone and experimental processes welcome], in colour and/or black & white. You may enhance the image and apply filters. See Terms and Conditions for all other details.

Heart of Gold International Short Film Festival. Entry is open to any student who was enrolled in Year 6-12 [Year 13 in some states]. Entry is free. Select Young Filmmakers Competition link on the home page for all details and forms. Previously, documents had to be submitted to the supervising teacher by the end of August then uploaded in early September. Winning entries were screened in early October. Exact dates once these are advised.

HIDDEN Rookwood Students A new component as a part of HIDDEN Rookwood Sculptures. We invite students from secondary and tertiary institutions or youth groups, either as individuals or as a group. We are interested in works that respond to the themes of history, culture, remembrance, love, cycles of life and the passage of time. We are open to a wide range of artistic approaches, materials and forms. For more information, please email the curator or contact the office on 02 8575 8100.

International Student Art Contest – Science without Borders® Challenge This international art competition is open to all students 11-19 years old. Students must be enrolled in primary or secondary school, or the home school equivalent. This document provides a wealth of detail about the event.

<u>Little Big Shots</u> Little Big Shots is Australia's largest and only annual touring film festival curated especially for kids. Featuring a selection of short and feature films, the festival lands in all major Australian capital cities. A kids' jury awards the best international, local, and child-made films each year.

Moran Contemporary Photographic Prizes Open to students in Primary schools and Years 7-8, 9-10 and 11-12 in secondary schools. It invites photographers to interpret "Contemporary Life in Australia" with an emphasis on Australians going about their day-to-day life.

OzKids Art Awards OzKids is a magazine which we distribute on a national basis and publish online through this website. Its purpose is to promote and support children's literary and artistic talents and to provide a vehicle for children to appreciate and develop their skills and encourage them to continue in the arts, especially when they see their work published. Have you got an entry ready now? This is your chance to have your work assessed by our panel of experts and published in our quarterly magazine.

<u>OzKids Art Competition</u> There are five categories available for you to choose from. These include Drawing, Painting, Indigenous, Photography and Computer Art. Entry form available from the site. You can also review a wide range of previous entries in all categories.

Pixel Prize Are you a budding young photographer? Do you want your art to say something your words can't? Welcome to Australian Catholic University's photography competition! The Pixel Prize is open to high school students from Australia (New South Wales, Victoria and Queensland) and from Bangladesh and Sri Lanka who have a passion for photography. The Pixel Prize, encourages students to address a topical theme through a creative, visual medium. These young photographers will be given the opportunity to connect with a photographic community and share their work with friends, family and the public.

Screen It Fancy yourself a filmmaker? Think you can match Shaun Tan in the animation stakes? Want to show off your skills as a videogame developer? Then get ready to enter this year's Screen It competition for your chance to create something amazing and win some awesome prizes! Every year, hundreds of students across the nation enter Screen It – ACMI's epic moving image competition for Primary and Secondary school students. Screen It is designed to educate, encourage and foster the next generation of young moving image makers. It's fun and, best of all, it's free!

Screenshot Competition The Screenshot competition offers students an opportunity to develop their photographic skills and gain recognition for their efforts. Students could submit up to three photographs each, in one of the following categories: Intermediate (Years 7–10) or Senior (Years 11–12). Each winner receives a copy of the book The photograph and Australia and two tickets to the next paying exhibition at the Gallery. Highly commended also receives two exhibition tickets. The winning and highly commended entries are published on the Gallery website.

<u>SmartFone Flick Fest</u> SmartFone Flick Fest is Australia's international smartphone film festival for filmmakers of all ages. We are a world-wide festival open to anyone with a smartphone or tablet and a great idea for a short film. Entry fee applies. SF3 Kids Pick Flick is for students under 16 years of age.

<u>StuffIT</u> If you are currently enrolled in Year 7-12 at any Australian or New Zealand Secondary School you are qualified to enter. Check the Entries link for further information. Entry date previously in mid-July with Short List announced in August. The Festival and Awards happened in October. Exact dates once these are advised.

<u>The Archibull Prize</u> The Archibull Prize will engage Secondary school students in agricultural and environmental awareness through art, design, creativity and teamwork by providing a blank Archie for students to create an artwork on or to use as the subject of an artwork which focuses on the [nominated] theme. Find details from the following downloads: <u>Important Dates</u> and <u>The Program</u>.

The ATOM Photo Comp The ATOM Photo Comp is an initiative of Australian Teachers of Media [ATOM]. It provides Australian and New Zealand student and adult photographers with the opportunity to submit a folio of three [3] photographs adhering to a theme, and win fantastic prizes in the process. The competition runs across five age-group categories: Lower Primary [Years F–3]; Upper Primary [Years 4–6]; Lower Secondary [Years 7–9]; Upper Secondary [Years 10–12]; and Open.

The Lester Prize Students in Years 7-12 are invited to paint a portrait of a well-known Australian; an Australian they respect/admire; or undertake a self-portrait. Previously listed as The Black Swan Prize.

The 1-Minute Film Competition Each film must be based on the year's theme. You can create a piece of fiction, a documentary, a community-service announcement or a music clip [be sure to adhere to copyright rules!]. Your film can be animated or live-action. It might be funny or serious.

<u>The Real Film Festival</u> The RFF's most popular short film competition invites filmmakers of all levels to find inspiration and tell your story through film. Each short film must take inspiration from one of the categories nominated for the year.

**TOMS Tournament of Minds** is a problem solving programme for a team of seven students from Year 7 to Year 10. They are required to solve demanding, open-ended challenges from one of the following disciplines: The Arts, Language Literature, Social Sciences and STEM. Tournament of Minds is an opportunity for students with a passion for learning and problem solving to demonstrate their skills and talents in an exciting, vibrant and public way. Teams are required to work together on a Long-**Term Challenge** for six weeks without assistance from teachers, parents or peers. They are encouraged to explore possibilities and experiment with ideas as they endeavour to produce their best possible solution. They develop a creative and original way to communicate this solution to others, working within predefined parameters such as limited materials, complex challenge criteria and the deadline of Tournament Day. Students present the product of their ideas - their challenge solution - to a panel of judges and an audience on Tournament Day. They have ten minutes in which to present and must do so within a 3 metre by 3 metre performance area. The teams must also participate in an unseen Spontaneous Challenge on Tournament Day. This challenge requires rapid interchange of ideas, the ability to think creatively and well-developed group cooperation skills.

<u>Trop[fest] Junior</u> Trop Jr is our signature event of 16 finalist films, showcasing the work of incredibly talented filmmakers as individuals or in teams, aged 15 years and younger. Each year, Trop Jr includes a "signature item" which needs to be incorporated into the entries to ensure that they are unique and are made specifically for Trop Jr. Entries must be seven minutes or less, and Trop Jr must be their world

premiere. Download our Filmmaker Entry Kit for more information, including technical requirements.

<u>Vivid Volunteering</u> Applications for Volunteer Opportunities at Vivid Sydney. If you are interested in Volunteering at Vivid Sydney please submit your details using the link above, and we will be in touch with more information when applications open.

<u>Wakakirri</u> The ultimate performing and visual arts challenge for schools. Your students will learn more about themselves and others through the creating and sharing of stories and in the process develop their education outcomes, lifestyle choices and community awareness.

<u>UTS ART Education and Outreach</u> program for primary, secondary and tertiary students connects participants with contemporary art, ideas and innovation and provides a foundation for working with the creative and cultural sector. Events and workshops based on the UTS ART Collection and Gallery program are held on campus, developing students' capacity as creative thinkers. Our <u>online resources</u> are available through-out the year.

Young Archie Competition Art Gallery NSW. The Young Archie competition invites budding artists between the ages of 5 and 18 to submit a portrait. There are four age categories: 5-8 year olds, 9-12 year olds, 13-15 year olds and 16-18 year olds.

#### **Economics and Business Studies**

Australian Economics and Business Studies Competitions The Economics and Business Studies competitions provide a great opportunity for students to test their economics and business studies skills against other students from all across Australia. All participants will receive a certificate signed by a representative from UNSW Australia. Furthermore, high-scoring students will be awarded with monetary prizes.

BlueShift Business Case Competition BlueShift is a business case competition for high schools, hosted by QUT Business School. With tips and support from successful QUT Business School students and experienced business professionals, you'll apply the theory you've learnt in class to a problem faced by real businesses. As you compete against other teams from across Australia, you'll develop professional presentation and creative problem-solving skills, and find out what it's really like to work in the exciting world of business.

Illuminate:nextgen Challenge The illuminate:nextgen Challenge is mapped to national vocational outcomes and fully aligned with the Australian Curriculum at the Years 9 & 10 level. Not only will your students be given an opportunity to showcase the entrepreneurial skills they have developed in the challenge, but they will also learn useful skills around Critical thinking, Creativity, Problem solving, Digital & financial literacy, Public speaking & presentation skills, organisation & perseverance and Working in a collaborative team environment. State venues and dates can be found through links on this page. Dates previously ran over the period from the end of May to early December depending on the venue. Register Interest in Upcoming Programs Near You using this page.

Plan Your Own Enterprise Competition The CPA Australia Plan Your Own Enterprise competition encourages secondary school students to apply their business education to a real life scenario. Participants are asked to devise a creative enterprise idea and submit a business plan, explaining how their great idea could become a profitable business. Winning student gets \$2,500 cheque courtesy of CPA Australia.

<u>Suncorp ESSI Money Challenge</u> We're turning the normal ESSI Money game that is played all year round into a national competition for two weeks! Students compete in one of two age brackets: 12-15 or 16-18. The 3 highest scores in each age category will be the winners. All other details including registration process and form available from the site. Download the App from the above site. Activity only runs for two weeks each year. Details from the site. Find information on <u>ESSI Money and ESSI Money PLUS</u> here. These are alternate activities.

Youth Citizen Entrepreneurship Competition A global programme to empower young entrepreneurs to create a sustainable world. The Youth Citizen Entrepreneurship Competition is a global programme and an online platform, which supports the implementation of the 17 Sustainable Development Goals (SDGs). The 17 Sustainable Development Goals (SDGs) and 169 related targets address the most important social, economic, environmental, health and governance challenges of our time.

<u>UTS School Outreach Programs</u> UTS Business School offers a series of workshops for students interested in pursuing Business as a study option and career. Designed for students from years 9 – 12, activities are integrated, hands-on practical workshops that allow students to tackle ethical and environmental business challenges and discover how day-to-day life contains the seeds of ideas for new and exciting business concepts. Phone: 02 9514 3079 | email: <u>business@uts.edu.au</u>

## **English, Debating and Languages**

Arts Unit provides a state wide infrastructure for arts education. It delivers programs in dance, drama, music, visual arts, debating, public speaking, reading, spelling and special events. Annually more than 44,000 students and 6,000 teachers directly participate in The Arts Unit's programs and an additional 433,000 students access these programs.

Australian Girl Kids Competition Wombat Books is reopening its Australia Girl Kids Competition. We're seeking original short stories from school-aged students [aged 5 - 13] to publish in the Australian Girl series. Short stories should explore day-to-day adventures in the city or outback; should be uniquely Australian; and can include environmental, sustainability or other relevant issues in the plot. Previously closed at the end of November, with winners announced early in the following year. Exact dates once these are advised.

<u>Australian Writer's Resource Competitions</u> A huge list of Writing Competitions! Some are Enrichment Activities others are for Gifted and Talented. There are new ones every month!

Ayn Rand Essay Contest Essay Contest. The Ayn Rand Institute has held worldwide essay contests for students on Ayn Rand's fiction for more than thirty years. Essays will be judged on whether the student is able to argue for and justify his or her view—not on whether the Institute agrees with the view the student expresses.

British Parliamentary Competition The DAV hosts annual BP competitions for Juniors [Years 7 to 8], Intermediate [Years 9-10] and Seniors [Years 11 to 12]. Each competition takes place over a single day, with students participating in a training session conducted by experienced British Parliamentary debaters, before taking part in a three round tournament of debates. Registration date still to be finalised. Check this page for final details. Venues for all have been provided.

<u>Catholic Schools' Debating Association</u> The CSDA has had a long history of success in raising the awareness of public speaking and debating in Catholic schools since 1968. We endeavour to maintain this proud tradition and promote a healthy competitive and social spirit in our young men and women.

CYA Hatchlings All writers and/or graphic novel illustrators who are between 12 - 18 years old, who have not been published in book format within the CYA genre can apply. \$100.00 per category, (1st \$50, 2nd \$30, 3rd \$20), and submission of short-listed entries to at least one children's publisher.

<u>Debating - NSW</u> The Premier's Debating Challenge is open to government schools throughout NSW, with age divisions for teams from Year 5 all the way up to Year 12. In addition, a number of other programs provide opportunities for exceptional debaters in different age groups.

<u>Dorothea Mackellar Poetry Competition</u> The oldest and largest poetry competition for school aged children in Australia. Our poets are encouraged to take inspiration

from wherever they may find it, however if they are looking for some direction, competition participants are invited to use this year's optional theme to inspire their entries.

Education Perfect English Championships The Education Perfect English Championship is a 6-day online event celebrating learning and achievement in English. With approximately 40 000 participants each year, this is a great opportunity to inspire your students' English learning while they compete on a global scale. Competition previously held in early May. Exact dates once these are advised.

**Everything is a Genre Competition** 8 to 18 years of age. We're starting a new competition category to coincide with our inaugural day for authors of all genres and ages. Extensive details available from the site. Be sure to check the Guidelines link at the bottom for further details including dates. Exact dates once these are advised.

**FAW NSW Hilarie Lindsay Young Writers** Short Story Competition for Australian School Children. Entries are sought in four sections corresponding to different year groupings. Entries previously closed at the end of August with winners announced during Term 4.

Future Leaders Writing Prize Designed to recognise and reward talented young writers. It aims to encourage expressive and creative writing. Australian Year 11 and 12 students are invited to submit a piece of writing [800 to 1 000 words]. The essays can be fiction or non-fiction and on any topic. Please send all submissions electronically in a word document by 31 May to helen@futureleaders.com.au. Results usually announced in August. Other dates once these are advised.

GC O'Donnell Essay Prize A prize of \$3 500 will be awarded to the author of an essay displaying original thinking on a topic of the author's choice regarding copyright and the protection of the interests of authors. The competition is open to any interested persons including authors, lawyers and students. Biennial competition. This is a Biennial Competition.

**German Film Competition** Multiple age groups - Years 3 to 6, Years 7 to 9, Years 10 to 12. Production of a short feature film, animation or cartoon film in German. Maximum length 4 minutes.

International English Olympiad The International English Olympiad is an attempt to not only locate the best talent in the world when it comes to the English language, it is supposed to be a measuring stick for students to assess where they stand in comparison to other students around the world, to give themselves, their parents, and their teachers a chance to focus on problem areas and improve upon them and to move ahead of the competition. Grouped in four levels covering Years 5-12. The event was previously held in December and is held online. All efforts are made to declare the results within 4 weeks from the date of the test. Exact dates once these are advised.

<u>International Essay Contest for Young People</u> The Goi Peace Foundation. This annual essay contest is organised to harness the energy, creativity and initiative of the world's youth in promoting a culture of peace and sustainable development. It

also aims to inspire society to learn from the young minds and to think about how each of us can make a difference in the world. This program is an activity within the framework of the UNESCO Global Action Program [GAP] on Education for Sustainable Development [ESD]. Guidelines for the 2020 International Essay Contest for Young People will be announced on this website and through the Goi Peace Foundation mailing list and Facebook page at the end of January 2020.

International Poetry Writing Competition [Ipswich Poetry Feast] An annual poetry writing competition giving poets of all ages the opportunity to compete. Widely promoted to schools, libraries and the general community. All details and guidelines available from the site. Entries previously opened in late March and closed early in August. Exact dates once these are advised.

Katharine Susannah Prichard Writers' Little Black Dress Spooky Story
Competition Spooky story submissions may involve paranormal or supernatural themes, including magic, ghosts, spirits or altered states of realism. Youth section [8-18 years of age] open to both WA and interstate writers. Free to enter. This has a maximum 500 words. Exact dates once these are advised.

Katharine Susannah Prichard Writers' Centre Poetry Competition Open to Australian residents and citizens only. There is a youth section [10-18 years of age] which is free to enter. This has a line count of 50 lines of poetry. Deadline previously in the first part of October and winners announced on Katharine Susannah Prichard's birthday on 1 December. Exact date once this is advised.

<u>Junior Public Speaking Competition</u> Students will develop the "building blocks" of public presentation — confidence, clarity, and the development of arguments — which are very important skills both in and out of school. For students in Years 7 and 8. From Term 2 [with finals to be held throughout Terms 3 and 4]. Exact dates once these are advised.

Intermediate Public Speaking Competition Intermediate students [Years 9 and 10] will be given the opportunity to extend their existing public speaking skills by presenting one prepared and two impromptu speeches. Previously held in June with winners announced on the day. Exact date once this is advised.

<u>Senior Public Speaking Competition</u> Senior students [Years 11 and 12] will be given the opportunity to extend their existing public speaking skills by presenting one prepared and two impromptu speeches [extended times compared to Intermediate students. Previously held in April with winners announced on the day. Exact date once this is advised.

Languages Championships [Education Perfect] The Championship is a 7-day online event celebrating learning and achievement in Languages. With approximately 200 000 participants each year, this is a great opportunity to inspire your students' language learning while they compete on a global scale. Competition previously ran from late August to early September. Exact dates once these are advised.

<u>Legacy Junior Public Speaking Award</u> The Legacy Junior Public Speaking Award aims to encourage the use of clear and effective spoken English. Since its inception

in 1995, the competition has provided an opportunity for NSW junior secondary students to improve their confidence and to develop their speech-writing and public speaking skills. The NSW winner will receive a medallion and \$500 courtesy of Sydney Legacy, and the NSW winner's school will receive a perpetual trophy.

<u>Liam and Frankie Davison Award</u>. Applications are invited from senior secondary students resident in Australia or New Zealand for the <u>Liam and Frankie Davison</u> **Award** for outstanding achievement in literary writing on an issue in women's health. This \$1000\* award provides an exciting opportunity for students, whether they are interested in medicine, science, health, sociology, politics or law.

MLTANSW Linguafest Students need to create and submit a short film which should be submitted using the relevant link. The film should be based on the theme A celebration. Following the format of the Tropfest competition, somewhere in the film, students need to have sunglasses. The teacher/school submitting the film MUST be a CURRENT [financial] member of the MLTANSW in order to access the information. Competition previously held just prior to the end of Term 3. Exact date once this is advised.

MS Readathon The MS Readathon is an iconic reading-based fundraiser that found its beginnings in schools across Australia in 1979. It encourages people of all ages to read and improve their literacy whilst at the same time empowering them to make a difference in the lives of people living with MS. Participants read as much as possible during the month of August and ask friends and family to sponsor them either online or by giving a donation in cash or cheque. This money goes towards providing vital support and services for people and their families living with MS.

National Child Writes Competition
Was opened for a certain period during the school year, now it is open until we reach a certain number of entries. Open to all Australian primary-school aged child writers and illustrators. The judges will be looking for originality, creativity and character, as well as correct punctuation and grammar for writers and consistency of artistic skills for illustrators. Small entry fee. All other details available from the site. Each term, we will open a 'round' and the winner of the writing section and the winner of the illustration section will go straight to the Short List. Regular updates about the number of entries will be made via <a href="www.facebook.com/ChildWrites">www.facebook.com/ChildWrites</a>. Exact dates once these are advised.

**NSW Premier's Reading Challenge** The Challenge aims to encourage a love of reading for leisure and pleasure in students, and to enable them to experience quality literature. It is not a competition but a challenge to each student to read, to read more and to read more widely.

Open Future Essay Competition The Economist. As part of the Open Future initiative we are holding an essay contest. It is open to people between 16 and 25 years old. Essays should be no longer than 1 000 words. Other details available from the site. Deadline for submissions was previously the end of July. Winning entries displayed on the Open Future Initiative site around October. Exact dates once these are advised.

OzKids Literature Program Covers all year levels [3 sections]. This is your chance to have your work assessed by our panel of authors and published in our quarterly magazine. Exact dates once these are advised.

OzCLO - Australian Computational and Linguistics Olympiad OzCLO is a contest for high school students. It challenges them to develop their own strategies for solving problems in fascinating real languages. The program is designed for high school students from year 9 to year 12.

<u>Patrick White Indigenous Writing Awards</u> The Awards have been designed to encourage Australian Indigenous students, in Kindergarten to Year 12 studying in NSW, to use their reading, writing and creative skills. Applications for this competition close at the end of Term 3 each year. Other dates once these are advised.

<u>Plain English Speaking Award</u> The award aims to encourage and maintain the best use of clear effective spoken English. PESA is a public-speaking competition for students aged 15-18 years. Details on the site.

<u>Poetry Group</u> is an online writers' group where students are encouraged to write poetry, experiment with ideas and form. Students can share their poetry writing for the group to read. Students are encouraged to write poetry for competitions, including Dorothea Mackellar Competition. Students can access the group through the **Google Classroom Page** with the **Code jscqv78**.

<u>Poetry Object</u> Red Room Poetry Object is Australasia's largest free poetry-writing competition for young people, with over \$10 000 in prizes to be won! Poetry Object ignites imaginations by inviting young writers [Years 3-10] and their teachers to create poems inspired by treasured, curious or talismanic objects. Submissions previously opened in the second half of April and closed in in late September. Shortlist announced in October. Winners were announced in November-December. Exact dates once these are advised.

<u>Public Speakers and Debaters</u> we have a Google Classroom Page. <u>Code: h6rnnn</u> Please join for all relevant information. All future announcements will be occur only on this Google Classroom page.

Redgum Young Writers Award Designed to discover the talent of children aged between 9 and 13 years of age. This award seeks to develop the writing skills of this particular age group and assist these children to find their unique voice through storytelling. The award can be entered by individuals, or by schools as part of their writing programs.

Rostrum Voice of Youth Public Speaking Competition for Secondary School Students. Run by Rostrum.

<u>SBS National Languages Competition</u> An initiative aimed to encourage and celebrate a love of learning languages in Australia. Open to Australians of all ages. Entries previously opened in the latter half of August and closed in the second half of

September. Winners were announced in the second half of October. Exact dates once these are advised.

<u>Schools Competition</u> Our focus is to make the competition as inclusive as possible, providing a welcoming but competitive environment for students to hone their skills and build their confidence. The competition is open for students in Years 9 to 12. Dates and Draws linked from this site. <u>Schools Competition 2020 Finals</u> <u>Information</u> details are found on this page.

<u>Somerset National Poetry Prize</u> The purpose is to encourage a love of writing poetry amongst secondary school students, to affirm it as a worthwhile literary pursuit, and to stimulate excellence in writing. It also aims to inspire and enrich youth literature. State winners will be invited to the Somerset Storyfest to be held on the Gold Coast.

<u>Spellmasters</u> SPELLMASTERS Spelling Competitions are open to all school children aged 15 years or younger and from Year 9 and under. Great prizes to be won each round. Any Australian school student up to Year 9 may enter.

<u>Storyfest National Novella Writing Competition</u> Open to all Australian high school students. Supported by Bond University and Penguin Group. Winners will be listed on the Storyfest web site.

<u>Storyfest Division 9 Writing Challenge</u> Please note, this competition is only for Division 9 Primary Schools. Held in conjunction with the Somerset Storyfest. Entries previously closed in mid- to late March. Exact dates once these are advised.

<u>Student Bush Poetry</u> The Royal Queensland Show [EKKA]. 'Pint-sized poets can take to the stage and showcase their favourite poetry in Ekka's Student Bush Poetry Competition [Students]. Students can compete in classes for established or original poems and have six minutes to belt out their bush ballads to a live audience. Entries previously closed in late July with the event held in the first half of August. A random draw for the order of performances will be held after the entry closing date. Exact dates once these are advised.

The Andy Griffiths Kids Writing Competition Open to Australian primary school students. Word limit is 400 words. Judged by the one and only Andy Griffiths! Full terms and conditions are found here. Entries previously opened in early July and closed at the beginning of October. Winners were announced at the end of November. Exact dates once these are advised.

The Evatt Competition UN Youth Australia. Evatt is a Model United Nations Security Council diplomacy competition for students in Years 9-12. More than 2 000 students compete in Evatt each year. The competition takes the form of a mock session of the UN Security Council. Teams of two students' debate, amend, and vote on a prepared resolution from the perspective of their assigned nation. Each state and territory have its own Evatt Competition throughout the school year, with top students in each state going to the National Finals.

<u>The Junior Open Competition</u> The Junior Open Competition caters for students in Years 6-8. Find competition details via this page. The Semester 1 competitions run from March to June and typically include 6 preliminary rounds and 3 final rounds. These competitions include the Junior Open [Years 6-8]. Check the <u>Calendar</u> for specific dates and venues.

<u>The Junior Premier Competition</u> The Junior Premier Competition caters for students in Years 5-7. Find competition details via this page. The Semester 2 competitions run from August to October and typically include 4 preliminary rounds and 3 final rounds. These competitions include the Junior Premier [Years 5-7]. Check the <u>Calendar</u> for specific dates and venues.

<u>The Senior Open Competition</u> The Senior Open Competition caters for students in Years 9-10. Find competition details via this page. The Semester 1 competitions run from March to June and typically include 6 preliminary rounds and 3 final rounds. These competitions include the Senior Open [Years 9-10]. Check the <u>Calendar</u> for specific dates and venues.

<u>The Senior Premier Competition</u> The Senior Premier Competition caters for students in Years 8-10. Find competition details via this page. The Semester 2 competitions run from August to October and typically include 4 preliminary rounds and 3 final rounds. These competitions include the Senior Premier [Years 8-10]. Check the <u>Calendar</u> for specific dates and venues.

<u>The Advanced Open Competition</u> The Advanced Open Competition caters for students in Years 11-12. Find competition details via this page. The Semester 1 competitions run from March to June and typically include 6 preliminary rounds and 3 final rounds. These competitions include the Advanced Open [Years 11-12]. Check the <u>Calendar</u> for specific dates and venues.

The Advanced Premier Competition The Advanced Premier Competition caters for students in Years 11-12. Find competition details via this page. The Semester 1 competitions run from March to June and typically include 6 preliminary rounds and 3 final rounds. These competitions include the Advanced Premier [Years 11-12]. Check the Calendar for specific dates and venues Exact dates once these are advised.

The John Marsden & Hachette Australia Prize for Young Writers The prize is open exclusively to Australian secondary school students. Submissions of fiction or non-fiction may be up to 3 000 words in length. Submissions of poetry may be up to 100 lines in length. Details on the site. Entries previously opened in mid-April and closed at the end of June. Winners were announced at the Melbourne Writers Festival event in August. Exact dates once these are advised.

<u>The Queen's Commonwealth Essay Competition</u> The Competition is an opportunity for all young Commonwealth citizens and residents, regardless of region, education or background, to share ideas, celebrate their story and have their voice heard - all whilst developing key skills. More details can be found in <u>this flyer</u>. Exact dates once these are advised.

<u>The Wombat Award</u> Henry Lawson Memorial & Literary Society. Kids 12 years and under are invited to enter up to three poems for a chance to win one of three prizes. The school libraries of the prize winners will also receive children's titles from Ford St Publishing. Entries previously opened in the September of the previous year and closed at the end of April in the current year. Winners are announced in June of the current year. Exact dates once these are advised.

**TOMS Tournament of Minds** is a problem solving programme for a team of seven students from Year 7 to Year 10. They are required to solve demanding, open-ended challenges from one of the following disciplines: The Arts, Language Literature, Social Sciences and STEM. Tournament of Minds is an opportunity for students with a passion for learning and problem solving to demonstrate their skills and talents in an exciting, vibrant and public way. Teams are required to work together on a **Long-Term Challenge** for six weeks without assistance from teachers, parents or peers. They are encouraged to explore possibilities and experiment with ideas as they endeavour to produce their best possible solution. They develop a creative and original way to communicate this solution to others, working within predefined parameters such as limited materials, complex challenge criteria and the deadline of Tournament Day. Students present the product of their ideas - their challenge solution - to a panel of judges and an audience on Tournament Day. They have ten minutes in which to present and must do so within a 3 metre by 3 metre performance area. The teams must also participate in an unseen Spontaneous Challenge on Tournament Day. This challenge requires rapid interchange of ideas, the ability to think creatively and well-developed group cooperation skills.

What Matters ? Competition [Whitlam Institute] A writing competition that gives Year 5 - 12 students in NSW, Victoria, ACT, WA and Tasmania a chance to say what matters to them in society today. What Matters opened for registration in January and previously closed in early May. Winners were announced in August and an Awards Ceremony was held at the beginning of September. Exact dates once these are advised.

Write a Book in a Day Write a Book in a Day is a unique, creative and challenging team competition for writers of all ages. Teams of up to 10 have just 12 hours to complete a book from start to finish. To make it even more fun, unique parameters must be included in the story. Registration previously opened at the beginning of May with the competition opening at the beginning of June. It closed at the end of August. A Short List was released in October and winners were announced in early November. Exact dates once these are advised.

Write4Fun Poetry and Short Story Writing Competition Entrants are encouraged to let their imaginations run wild and get their creative juices flowing to write on any theme. Registration previously opened at the beginning of February and closed in early April. Exact dates once these are advised.

<u>Write the World</u> Each month Write the World holds a new competition, developed around a particular idea or genre of writing, such as poetry, fantasy, sports journalism, or flash fiction. Competitions encourage you to dig deeper into the writing process, try out new genres and share your work with a sea of eager readers. For topics see their <u>Upcoming Writing Competitions</u> page. Each month Write the

World holds a new competition, developed around a particular idea or genre of writing, such as poetry, fantasy, sports journalism, or flash fiction.

<u>Voice - UN Youth Australia</u> Voice is a unique public speaking competition for students in Year 7-10. Voice invites you to solve issues that affect your community, nation, and the world. From homelessness to climate change, we want to hear you pitch your big ideas. Links are provided to each state body, e.g. <u>NSW</u>. Initial Rounds have previously been in mid-October to early November, followed by Semi-Finals and Final ending in early December. Some offer the opportunity to express interest and be updated on relevant details. Check state links for exact dates and procedures.

Voice of Youth The competition is divided into Junior and Senior Divisions. Junior students must be at least 11 and in years 7, 8 or 9 as at 1st January. Senior students must be under 18 years of age and in years 10, 11 or 12 at 1st January. Seniors speak for eight minutes and Juniors for six minutes. Operates in all states [use links on the site]. Run by Rostrum. Registration previously opened in the second half of February and closed early in March. State Finals in late June were followed by a National Final in late July.

<u>Word Mania</u> Word Mania is a word-building challenge that's easy to play but tough to master. Race against the clock to build as many words as you can from 15 letters in just three minutes, and help your school reach the top of the leaderboards! The competition is by year level and open to Years 1 to 9. Play and raise funds for the Australian Literacy & Numeracy Foundation! Check the <u>Word Mania Australia FAQ</u> page for all details. Competition and Final Rounds were in early and late August respectively. Exact dates once these are advised.

# **General and Multi Discipline**

<u>Big History</u> Today we have more information available to us on our phones than was available in all the great libraries of Alexandria. How do we decide what claims we can trust? Big History teaches students to examine their intuition, looking at the authority, evidence, and logic of claims across disciplines and scales. Students learn to apply a thoughtful, consistent, and rigorous approach to engaging with new ideas and information and using evidence to construct effective arguments. <u>Register now</u> to explore the course.

BRAINways EDUCATION is pleased to offer Academicus – programs of workshops for gifted and talented students of Sydney. BRAINways EDUCATION programs provide opportunities for highly able and gifted students and are tailored for their special educational needs. Incorporating information and learning from a great variety of international curricula, the BRAINways EDUCATION programs provide learning experiences that are advanced in content and process, providing challenging yet interesting, hands on learning; specifically designed to stimulate motivation and interest among gifted and talented students. Creating opportunities to engage with complex, abstract and multi-disciplinary problems, events or phenomena, the BRAINways EDUCATION programs meet the fundamental principles of gifted education and stimulate higher order thinking, analysis and reflection.

<u>Country to Canberra's Leadership Competition</u> At least 15 young women will win a once-in-a-lifetime all-expenses paid 'Power Trip' prize to Canberra to meet inspiring politicians and CEOs, attend exclusive events, tour Parliament, receive leadership and public speaking training and so much more. Years 10-12. Note the Eligibility Criteria.

da Vinci Decathlon Leonardo da Vinci's bold and imaginative intellectual legacy continues to inspire us all. He was skilled in a range of disciplines, which are reflected in the tasks that students will be undertaking. Students will compete in ten disciplines including Mathematics and Chess, English, Science, Code Breaking, Engineering Challenge, Philosophy, Creative Producers, Art and Poetry, Cartography and General Knowledge.

<u>Defence 2020</u> Defence 2020 was a multi-faceted education program designed to encourage young Australians to become informed about the role of Australia's Defence Force and to engage in constructive dialogue on a wide range of Defence related issues such as national security and our rights and responsibilities as global citizens.

Education Perfect - Humanities Championships The Education Perfect Humanities Championship is a 3-day online event celebrating learning and achievement in Geography, History & Social Sciences. With over 20 000 participants each year, this is a great opportunity to inspire students' Humanities learning while they compete on a global scale. Suitable for students from Year 5 to Secondary. Event previously held in the second half of March. Exact dates once these are advised.

**Ethics Olympiad** The Ethics Olympiad makes an exciting and educationally important international experience integral to an academic competition incorporating core elements of both the Ethics Bowl and Philosothon, two innovative approaches to teaching ethics hugely popular with students and acclaimed widely by educators. Information for **Middle Schools** and **Junior Schools** are found on these pages. Senior School teams can register interest for participation on **this page**. Previous events have been held in May-June in each capital city. Exact dates once these are advised.

Front Page The News of the Future - Schools Competition. Front Page is an initiative of Nine and Australian Teachers of Media [ATOM]. It provides Australian schools and classes with the opportunity to create and submit a short school newspaper and win fantastic prizes in the process. The competition includes three age-group categories. Schools that intend to enter Front Page will be able to access a free digital subscription to The Age or The Sydney Morning Herald, accessible to all students and staff members within their school. Entries previously closed in early September. Winning schools and classes were announced at the SAE ATOM Awards Student Awards Presentation, held in mid-November. Exact dates once these are advised.

<u>Future Problem Solving</u> It takes you beyond traditional subject learning and allows you to grapple with some of the important issues we face today. You can be part of the solution and part of the future by learning how to think, not what to think. FPS develops your skills in teamwork, research and creative thinking; skills that are applicable to all learning.

**ICAS** Independent skills-based assessments with a competition element. The most comprehensive generally available suite of academic assessments and school tests for primary and secondary school students. Run by Educational Assessment Australia UNSW. Scroll down this page for relevant Sitting [and Closing] dates for particular areas. All occur in August or September.

LittleBlGidea The big competition for inventive little kids. Our judges will select 12 finalists in mid-October. Each will be invited to a day-long workshop in Melbourne. They'll be guided on how to refine their invention, and how to put together a final video pitch. From these video pitches, our judges will declare the 3 winners. Promotion previously started in the second half of July. Online and mail entries closed in mid- to late September. Finalists were announced early in October. Winners were announced in mid-November. Exact dates once these are advised.

Macquarie University Gifted and Talented Entry Program Our Gifted and Talented Entry Program allows a select group of high achieving students the opportunity to enrol at Macquarie while still at high school. As a Gifted and Talented Program student you'll tackle Macquarie's first year Critical Thinking unit in Year 11. You'll gain analytical and reasoning skills that will benefit you in your HSC study. Then pursue your passion with another Macquarie first year study unit to undertake in Year 11 or Year 12. If you successfully complete your units with the necessary GPA, we'll open the door to an early offer for a Macquarie University degree. Great for Year 10 students!

**NSW Negotiations Competition [UN Youth]** The competition takes the form of several rounds of formal negotiations over disputed topics between teams. Each individual structured negotiation consists of two teams of two students, representing their respective nations, proposing and debating solutions to find mutually beneficial resolutions to disagreements based in real-world situations. Students from Years 10 - 12. Preliminary Rounds, Semi-Finals and Grand Final have previously been held in August. Exact dates once these are advised.

One More Page Linked with a children's book podcast called 'One More Page'. It's all about kids' books with author interviews, book reviews and more. Every fortnight we have a competition which includes prize giveaways. A new competition is offered every fortnight.

Philosothon The rationale for the Philosothon methodology is based on empirical evidence that teaching children reasoning skills early in life greatly improves other cognitive and academic skills and greatly assists learning in general. Cost covers registration, accommodation and food over the two/three days. Each year the top three schools from each state have been invited to participate in the <a href="Australasian Philosothon">Australasian Philosothon</a>. Invitations will be available. Deposits were due in early May with names of students and teachers by early August. Student question were due by mid-September. Exact dates once these are advised.

<u>Say No to Bullying Poster Competition</u> The aim of this competition is to raise awareness of bullying and to assist schools and organisations to identify and address bullying behaviours in their communities. We are working with you to build a community of upstanders who will say no to bullying. Exact dates for these once they are advised'.

School Competitions [Royal Agricultural Society of NSW] Competitions take place as trials at school and culminate in an excursion to the Sydney Royal Easter Show to compete against schools across NSW. They cater for all schools in metropolitan, regional or rural areas – regardless of school size and resources. All Competitions offer FREE entry for schools. Key Dates & Schedule are found here [still to be posted]. They run from August of one year to the Show held over the Easter period in the following year.

Schools for Sustainability Teams of students from Years 7 to 12 explore the ecological situation in their place of residence, street or school. With concrete ideas and actions, they draw the public's attention to the existing ecological situation. To conclude, they must submit project documentation. Some teaching materials are available from the site. Registration [form on the site] has previously closed late in October with submissions being finalised at the beginning of November.

Sydney University Student Model United Nations The Sydney Model United Nations is an annual model United Nations conference run by our fellow diplomats at University of Sydney in late November or early December, gathering students from New South Wales and beyond for a intervarsity weekend of engaging debates and socials. Conveniently located at the University of Sydney, the conference is a worthy option for students.

Tax, Super + You Competition If you're a student in Year 7–12, we want you to think outside the box and develop creative products that highlight the value of tax and/or super in the community. You can be as creative as you like - some examples include: Write It - short stories, a script or a marketing proposal; Make It - artworks, comic strips, songs or a prototype of an app or game; Film It - videos, skits or music clips. Entries previously opened early in June and closed in the second half of August. Exact dates once these are advised.

TOM - Tournament of Minds
Tournament of Minds is a problem-solving program for teams of students from both primary and secondary years. Australia and New Zealand now have brand new challenges for STEM and The Arts. You will need to create an account in order to use the portal for School Registration, Team Nominations and to access other tournament resources. <a href="State Branches">State Branches</a> run challenges for each state. Go to this page for all entry details.

#### **UTS School Outreach Programs** These include:

- UTS Business School offers a series of workshops for students interested in pursuing Business as a study option and career. Designed for students from years 9 12, activities are integrated, hands-on practical workshops that allow students to tackle ethical and environmental business challenges and discover how day-to-day life contains the seeds of ideas for new and exciting business concepts. Phone: 02 9514 3079 | email: business@uts.edu.au
- Engineering Discovery Day This one day event is ideal for Year 10–11 high school students who enjoy finding creative solutions to problems and who want to find out more about engineering and IT courses and careers. Students learn through on-campus hands-on workshops in areas such as humanitarian engineering, mousetrap race cars, robobowls, game design, programming, creativity and project management. | Phone: 02 9514 2666 | email: feit@uts.edu.au
- Engineering Hands-On Day for Girls This one-day event provides an opportunity for female students in years 8–12 to participate in a range of hands-on activities and get an inside look at life as a female in a maledominant field. Phone: 02 9514 2602 | email: WIE & IT
- Health activities Discover sessions 'Discover' workshops are run for students considering a career as a registered nurse or midwife. Students take part in an interactive panel discussion followed by an informal and hands-on tour of UTS' state-of-the-art clinical facilities. Phone: 02 9514 4911 | email: health@uts.edu.au | website: Discover sessions
- Law Discovery Day This program is offered to Year 11 students and provides an opportunity to meet undergraduates, academics and professionals in law, and explore the possibilities of law as a study option and career. The program features hands-on practical activities, such as a mock trial, and workshops in popular areas of the law, such as human rights and criminal law. Phone: 02 9514 3747 | email: law@uts.edu.au

- Science activities: Science Outreach UTS Science Outreach offers
  many opportunities for science and mathematics engagements with school
  students which includes hands-on workshops, science challenges, careers
  forums, demonstrations. Open to school students from years 7 to 12 but
  with a focus on years 10-12. Activities are designed to excite and inspire
  students, and exposed them to applications of science and maths in our
  everyday life. Phone: 02 9514 8276 | email: science@uts.edu.au | website:
  Science outreach webpage
- UTS Art Education <u>UTS ART Education and Outreach</u> program for primary, secondary and tertiary students connects participants with contemporary art, ideas and innovation and provides a foundation for working with the creative and cultural sector. Events and workshops based on the UTS ART Collection and Gallery program are held on campus, developing students' capacity as creative thinkers. Our <u>online resources</u> are available through-out the year.

# **Geography**

Asiawise Project A flexible teaching program that provides a resource for teachers to use at three levels. You can use only the Asia Wise Challenge or all three sections. Separate programs for lower [Aust. years 7 & 8 - NZ 8 & 9] and upper [Aust. Years 9 & 10 - NZ 10 & 11]. Asia Wise can be used at any time from March to December. You need to register two weeks before you wish to use the program. Register online or by email.

Australian Geography Competition The Australian Geography Competition is an initiative of the Royal Geographical Society of Queensland and the Australian Geography Teachers' Association. We look forward to your school taking part in 2016. Why enter? For the teacher/school: to promote interest in geography in your school and to reward student excellence. For the students: to compete for great prizes - overseas trip to represent Australia at the International Geography Olympiad, participate in Geography's Big Week Out on North Stradbroke Island, Queensland, books, medals - and to get certificates for their portfolios.

Barbara Petchenik Children's World Map Drawing Competition The aims of the competition are to promote children's creative representation of the world, to enhance their cartographic awareness and to make them more conscious of their environment. The awards are given every two years.

International Geography Bee The International Geography Bee is a worldwide geography quiz competition for primary and secondary school students. Please select a region or the World Championships from the menu bar to learn more. The Australia & New Zealand information is found here.

MapIT Students will learn how to use the latest spatial technology to create maps. Maps will focus on improving livability or solving local environmental problems. All details are available through either the YouTube presentations or the Instruction sheets [both Primary and Secondary].

The International Geography Olympiad [iGeo] The International Geography Olympiad (iGeo) is an annual competition for the best 16 to 19 year old geography students from all over the world. Students chosen to represent their countries are the very best, chosen from thousands of students who participate enthusiastically in their own National Geography Olympiads. The iGeo consists of three parts: a written test, a multimedia test and substantial fieldwork requiring observation, leading to cartographic representation and geographical analysis. The programme also includes poster presentations by teams, cultural exchanges, and time for students to get to know their fellow students and explore the host city.

Where I Live Competition ABC Splash. Create a 60-second video about where you live, describing what makes it special. You can talk about your street, neighbourhood, hometown or school; you can focus on one thing, such as a plant or animal species; or you can talk about a historical fact or geographical landmark. They're looking for great examples of local geography or history, and how you use your English and media literacy skills. To submit entries, you need to go to the linked ABC site.

**TOMS Tournament of Minds** is a problem solving programme for a team of seven students from Year 7 to Year 10. They are required to solve demanding, open-ended challenges from one of the following disciplines: The Arts, Language Literature, Social Sciences and STEM. Tournament of Minds is an opportunity for students with a passion for learning and problem solving to demonstrate their skills and talents in an exciting, vibrant and public way. Teams are required to work together on a Long-**Term Challenge** for six weeks without assistance from teachers, parents or peers. They are encouraged to explore possibilities and experiment with ideas as they endeavour to produce their best possible solution. They develop a creative and original way to communicate this solution to others, working within predefined parameters such as limited materials, complex challenge criteria and the deadline of Tournament Day. Students present the product of their ideas - their challenge solution - to a panel of judges and an audience on Tournament Day. They have ten minutes in which to present and must do so within a 3 metre by 3 metre performance area. The teams must also participate in an unseen Spontaneous Challenge on Tournament Day. This challenge requires rapid interchange of ideas, the ability to think creatively and well-developed group cooperation skills.

# **History**

<u>Anzac Day Schools' Award</u> Designed to encourage initiative and creativity in the way that schools commemorate Anzac Day, with an emphasis on inventiveness balanced with tradition.

<u>Australian History Competition</u> Each competition will present 50 multiple choice questions. Questions will focus on key elements of the Australian History Curriculum - sound historical knowledge, historical skills and historical understandings. Year 10 and Year 8 Competition levels.

**Big History** Today we have more information available to us on our phones than was available in all the great libraries of Alexandria. How do we decide what claims we can trust? Big History teaches students to examine their intuition, looking at the authority, evidence, and logic of claims across disciplines and scales. Students learn to apply a thoughtful, consistent, and rigorous approach to engaging with new ideas and information and using evidence to construct effective arguments. **Register now** to explore the course.

Extension History Essay Prize [The History Teachers' Association of NSW] The Extension History Essay Prize is open to essays that satisfy the requirements of the NSW HSC Extension Project, are the product of genuine research and represent 'interesting and well written history'. The Prize is sponsored by the University of Sydney's Department of History. There are also special category prizes which may be entered. Details on the above link.

International History Olympiad Students can <u>qualify</u> in any of the following ways. The International History Olympiad is a celebration of history attended by some of the best young history students from around the world, featuring numerous competitive and non-competitive events. The Olympiad is held every two years. All relevant details from the site. Check the <u>How to Qualify</u> page for confirmed dates and other information.

National History Challenge The National History Challenge is a research-based competition for students. It gives students a chance to be an historian, researching world history, examining Australia's past, investigating their community or exploring their own roots. It emphasises and rewards quality research, the use of community resources and effective presentation.

The Simpson Prize The Simpson Prize is a national competition for Year 9 and 10 students. The competition encourages participants to focus on the significance of Anzac Day and to consider what Anzac Day means to them and to Australia. The student winners, runners-up and teacher chaperones enjoy a two-day trip to Canberra where they visit several of the capital's museums and institutions, attend the presentation ceremony at Parliament House, and enjoy a formal dinner at the Royal Military College, Duntroon. Eight prize-winners will then travel to Turkey for the opportunity of a lifetime! They will embark on a twelve-day exploration of Istanbul and Gallipoli and take part in the commemorative ANZAC Day ceremonies at various sites on the Peninsula.

## **Legal Studies**

High School Mooting Competition A moot is a legal argument conducted by opposing teams before one or more judges. The argument involves the application of legal rules to fact situations like those dealt with by the courts every day. The contest is decided by assessing the advocacy skills of the participants, rather than on the merits of the case. The competition is designed to challenge students to prepare, articulate and defend complex arguments in order to solve problems. More generally, it introduces the students to the courtroom environment and gives them some insight into the workings of the legal system. It is not only intended for those students who are interested in a career in law - although they will undoubtedly find the competition to be of particular interest - but for all students keen to expand their horizons. Entry is targeted towards Year 10, 11 and 12 students.

Mock Trial Competition [The Law Society of NSW] Open to schools across NSW for students in Years 10 and 11, the program aims to introduce students to the NSW judicial system by providing practical experience into the running of a court case in a true-to-life adversarial setting. Students learn advocacy, debating and problem-solving skills. Years 10-11. Online Registration. Rounds previously began in late February. Monitor the site for when this is available.

<u>UTS School Outreach Programs</u>: Law Discovery Day This program is offered to Year 11 students and provides an opportunity to meet undergraduates, academics and professionals in law, and explore the possibilities of law as a study option and career. The program features hands-on practical activities, such as a mock trial, and workshops in popular areas of the law, such as human rights and criminal law. Phone: 02 9514 3747 | email: law@uts.edu.au

#### **Mathematics and STEM**

AoCMM - Maths Modeling Competition AoCMM is a maths modeling competition held each year. Students under 21 from any countries can compete online in teams of up to four individuals. The team will be given 14 days to research on two real world problems. Teams will be given specific topics to conduct independent research which they'll present in the form of an organised research paper. Last year, 110+ teams from 20+ different countries participated. Register now for this year's competition.. Exact dates to be determined.

<u>Australian Mathematics Trust</u> The Australian Mathematics Trust is a leading provider of mathematics and algorithmics enrichment programs and global competitions. We hold mathematics and algorithmics competitions, administer enrichment activities, conduct workshops for students and teachers, and publish books on mathematical enrichment for Australian and international students.

Australian Mathematics Competition The AMC is for students of all standards. Students are asked to solve 30 problems in 60 minutes (Years 3–6) or 75 minutes (Years 7–12). Students mark their responses on a mark-sense sheet and these are processed by computer. The earliest problems are very easy. All students should be able to attempt them. The problems get progressively more difficult until the end, when they are challenging to the most gifted student. Students of all standards will make progress and find a point of challenge.

Australian Mathematical Olympiad Committee (AMOC) Invitational Program is a program which offers the top students from the Mathematics Challenge for Young Australians (MCYA) and the Australian Mathematics Competition (AMC) extra enrichment opportunities, and can lead to selection in the Australian team to participate in the International Mathematical Olympiad (IMO). The IMO is the pinnacle of competition between students of pre-university level from different countries.

Australasian Problem Solving Mathematical Olympiads The Australasian Problem Solving Mathematical Olympiads (APSMO) is a not-for-profit, professional organisation that offers a range of mathematical competitions for students aged from around eight to 14. The programs are unique in that they focus on the students' ability to solve mathematical problems in a creative manner - as opposed to simply reaching a solution using a prescribed method.

Computational and Algorithmic Thinking (CAT) competition is a one-hour problem-solving competition which seeks to identify computer programming potential—something which students might not normally have an opportunity to demonstrate. The CAT is not a programming competition and no programming experience is required. Results in the CAT often enable a talent to be discovered that is not always apparent or sought in normal classroom activities. Some questions test the ability to accurately perform procedures; others require logical thought, while the more challenging problems require the identification and application of algorithms. The inclusion of digital technologies in the Australian Curriculum provides another reason why schools should consider this contest for their students.

Education Perfect - Maths World Championships One of a series of Championships covering a variety of areas. Points gained can be accumulated from multiple championships towards overall achievement both as schools and individual students. Entries open early in the year. 7-day event previously held at the end of July to early August. Exact dates once these are advised.

Have Sum Fun Online HSFOL is conducted by the Mathematical Association of Western Australia (MAWA) and is endorsed by the Australian Association of Mathematics Teachers (AAMT). It is a maths quiz of NAPLAN-type problems for year-level teams of four students. HSFOL is designed to foster mathematical problem solving for students in Years 3-10 across Australia. The competition consists of three rounds of 10 questions, where student teams have one hour to complete each round of questions. Each round is accessible on the HSFOL website for one week, and rounds are a week apart. Teams can log on at any time during each set week and have an hour to complete each round. However, completion time is important, because in the case of ties for any of the first three places, the winner will be the team that took the least time to complete all three rounds. All team members will receive a participation certificate, which will be emailed to your teacher. All student team winners will receive a MAWA place-getter's certificate with applicable prizes, and all team results are listed online so that results between teams and between schools can be compared. The top three place-getters are shown in the League Table, and there are prize vouchers for each student in these three teams.

#### **HSC MX 1 & 2 Day** Maths Extension 1 and 2 Tutorials.

International Mathematical Modelling Challenge Solving real problems takes time and teamwork and often requires a mix of different kinds of mathematics. The IM2C provides students with a deep experience both of how mathematics can explain our world and what working with mathematics looks like as they collaborate over five days to solve an authentic problem.

Investigating with Mathematics The purpose of the investigation is to explore 'real-life' situations and problems to engage students and teachers in mathematics. It involves students formulating their own questions from a given situation. Investigating with Mathematics tasks meet Working Mathematically syllabus outcomes as well as outcomes in the strands in which the investigation takes place. All students from Kindergarten to Year 12 in NSW are eligible to enter. Registrations previously opened at the beginning of March and closed early in July. State Judging was in mid-August with a State Awards Ceremony in early September. Exact dates once these are advised.

Matific - The Australian and New Zealand Maths Games The Matific Maths Games is a friendly online maths competition aimed at improving student's confidence and maths skills. Any primary school with a minimum of 100 students or class with a minimum of 10 students can participate in the Matific Maths Games. Winners listed on the main site once these are finished. Other dates once these are advised.

MAT Problem Solving Competition The event consists of a set of mathematical problems which aim to test the student's logic. There are normally 12 questions for each of the three divisions [Junior - Years 7 & 8; Intermediate - Years 9 & 10; Senior - Years 11 & 12]. Entries previously due by mid-March with the event held about a week later. Winners announced in Term 2. Exact dates once these are advised.

<u>Mathematics Association of NSW Competitions and Activities</u> A huge range of Mathematics Competitions which suit students of all abilities.

Mathematics Challenge for Young People The Mathematics Challenge for Young Australians (MCYA) is a staged program designed to help teachers motivate, stimulate, encourage and develop mathematically interested students in Years 3 to 10 to bring forth the talent and potential within. The MCYA is an ideal program for extension studies and for students who would benefit from greater challenge. There are three independent stages in the Mathematics Challenge for Young Australians: The Challenge Stage, the Enrichment Stage and the Australian Intermediate Mathematics Olympiad (AIMO).

<u>Maths INSPIRATION</u> Inspire students to study STEM subjects to HSC and beyond! Maths Inspiration is marketed as a "maths enrichment program for teenagers 15 to 17 years old.

Maths Olympiad and Maths Games The Maths Games and Maths Olympiad competitions offered by APSMO provide students with an opportunity to participate in a challenging and rewarding program that stimulates their creative maths problem solving capabilities. By entering different teams in the Maths Games and the Maths Olympiad competition you will develop a problem-solving pathway of achievement in your school, and provide both mainstream and high achieving students with the opportunity to enhance their skills and knowledge of maths problem solving.

Maths Problem Solving Workshops MANSW – Inquisitive Minds Problem Solving Workshops are a great way to provide students with unique, engaging maths activities. Stage 2 Out of the Box, Stage 3 Out of the Box and Year 7 – 9 Problems, Patterns, Pictures, Puzzles Workshops each include an interactive lesson on strategic problem solving and a hands-on problem-solving competition. We can run Workshops for all ability levels in your school. The length of workshops can be adjusted to your school's needs and we are able to run up to three separate workshops in a day. We also run Talented Workshops in central venues, where capable students are given an enriching maths experience.

The UNSW School Mathematics Competition Secondary school students in New South Wales and the Australian Capital Territory. Two divisions: Junior, up to and including Year 10, and Senior, Years 11 and 12. Designed to assess mathematical insight and ingenuity rather than efficiency in tackling routine examples. Information Packs previously sent out in March. Entries previously closed in the second half of May with the event held in mid-June. Prize ceremony held in early September at UNSW. Exact dates once these are advised.

<u>World Maths Day</u> World Maths Day is a free, fun, online competition with up to 4 million students world-wide participating. The competition measures speed in

arithmetic and numeracy skills on the Live Mathletics platform and runs for 48 hours and is open to all schools around the world. Students earn points from a maximum of 20 games during the 48-hour period. Registrations previously closed early in March with event held in mid-March followed shortly after by winners being announced on the site. Exact dates once these are advised.

#### Music

ACMF National Song writing Competition Every year every student from every school across Australia is invited to put pen to paper and enter their original song for a chance to win prize-money that can be allocated towards musical equipment and tuition, as part of the ACMF's annual National Song writing Competition. Our annual National Song writing Competition is a nationwide initiative designed to encourage creativity and self-expression through song writing.

Artology - Fanfare Competition The competition is open to young people aged 12-21 years. To enter write a 30 second composition and submit a score and recording online. Eight selected participants will work with mentor composer Nicholas Vines to fully develop their ideas, and have their work pre-recorded by the Australian Youth Orchestra. The competition is looking for works that have 'something to say' and that draw attention. You don't need to have a strong musical background – your work just needs to draw attention for the intended use of cueing audiences to take their seats at the Sydney Opera House.

Arts Unit provides a state wide infrastructure for arts education. It delivers programs in dance, drama, music, visual arts, debating, public speaking, reading, spelling and special events. Annually more than 44,000 students and 6,000 teachers directly participate in The Arts Unit's programs and an additional 433,000 students access these programs.

<u>Australian Singing Competition</u> Australia's richest and most prestigious competition for young opera and classical singers. Suited to senior secondary and tertiary students. Over AUD \$200,000 in prizes and opportunities were awarded at the Finals and Semi-Finals Concerts. People must be under 26 years of age. Find all details and dates on the **How to enter** page.

Get Songwriting Competition USQ If you are a Year 10-12 high school student in Australia, it is time to let the music flow and get songwriting! Enter a song or two for your chance to win a place at the week-long USQ Artsworx McGregor Music Retreat. Valued at over \$1400, this prize includes the opportunity to attend songwriting workshops, jam sessions, elective workshops, performances and more. Your accommodation at the Retreat is part of the prize, and it will be fully supervised accommodation and meals for the week on-campus at USQ Toowoomba.

Music: Count Us In Music: Count Us In (MCUI) is Australia's biggest school initiative. More than 550,000 students from over 2,100 schools participated nationwide. Music: Count Us In brings teachers, parents, students and the music industry together in celebration of music and music education. In 2016 we celebrate our 10th anniversary! MCUI is available to all schools and registration is FREE. The program is a perfect fit for schools with an existing music program and for schools without one. We really do encourage all schools to get involved, including those who already deliver music to their students. Music: Count Us In exists to advocate for improved access to music education for all students across Australia. Raise your voice to help us! Can we count you in?

<u>Score IT!</u> A state-wide film-scoring competition open to all secondary school students in Queensland. The competition challenges young composers to create an original composition to accompany a short film produced by the Griffith Film School. Based on year level, students compete in either Score IT! Junior or Senior by composing and recording a soundtrack using instruments of their choice.

Triple J Unearthed High Competition We're looking for the best high school act in the country to follow in the prestigious footsteps of acts like Japanese Wallpaper, Lunatics on Pogosticks, ASTA, Stonefield and more. If you're a songwriter, in a band, a producer or MC - we want to hear from you! The best entries will be played on national radio, and if you're our winner, we'll fly you to triple j to record, remix or master a track. We'll play it on the radio too! You'll also get professional music advice from a top Australian act and their manager, and triple j will come to your school!

## **Philosophy and Religion**

Academy Conferences These conferences ask the Big Questions for Gifted Students: So What's it All About? Who am I? What can I hope for? What Can I Know? What do I Believe? What Ought I do? The God Conclusion? There are Junior Conferences as well as Senior Conferences.

<u>Big History</u> Today we have more information available to us on our phones than was available in all the great libraries of Alexandria. How do we decide what claims we can trust? Big History teaches students to examine their intuition, looking at the authority, evidence, and logic of claims across disciplines and scales. Students learn to apply a thoughtful, consistent, and rigorous approach to engaging with new ideas and information and using evidence to construct effective arguments. <u>Register now</u> to explore the course.

**Philosothon** Held in Australian states. The rationale for the Philosothon methodology is based on empirical evidence that teaching children reasoning skills early in life greatly improves other cognitive and academic skills and greatly assists learning in general. Cost covers registration, accommodation and food over the two/three days. Each year the top three schools from each state have been invited to participate in the **Australasian Philosothon**. Invitations will be available. Deposits were due in early May with names of students and teachers by early August. Student question were due by mid-September. Exact dates once these are advised.

### **PDHPE**

**NSW CCC** A website for talented athletes to look for events to represent the school at the higher level. Much of it is individual nomination, and they do it through the website and if approval needed see Mr Cutler.

**NSW Premier's Sporting Challenge** A range of initiatives with one common purpose - to have more students, more active, more of the time! Sport plays an important role in developing regular physical activity, provides positive health outcomes and is a fun and healthy way to connect with your local community. We invite students to take up the Challenge - and take the path to a healthier life.

#### Science and STEM

A Beamline for School Competition A Beamline for Schools competition remains open to teams of at least five high-school students aged 16 and up with at least one adult supervisor, or "coach". Think of a simple, creative experiment and submit your written proposal and short video. Previous winners have investigated the structure of the pyramids, looked for particles that no-one has seen before, or have developed their own particle detector. What would you do? A <a href="Pre-Registration Form">Pre-Registration Form</a> is available here. Exact dates once these are advised.

Asian Science Camp The Asian Science Camp brings together around 200 talented young people in a celebration of science and friendship. It aims to promote international cooperation and networks among the best young science students of the next generation in Asia, Australia and Oceania and encourage deeper thinking about science and scientific knowledge. During the six-day camp Nobel Laureates and world class researchers share their science experience through plenary sessions, round table discussions and student master classes. There are social and cultural events too. To be eligible to apply you must:— have attended any Australian Science Olympiad Summer School in 2015 and/or 2016, OR have achieved a high distinction in any Australian Science Olympiad Exam, OR have achieved a high distinction in the 2015 Big Science Competition senior paper, AND currently be in year 12 or first year university (or taking a gap year with a deferred university placement) AND have, or be eligible for, an Australian passport valid.

Australian and New Zealand Brain Bee Challenge Motivates young people to learn about the brain. Created to inspire students to pursue careers in neuroscience research. A test of knowledge about important facts concerning intelligence, memory, emotions, sensations, movement, stress, aging, sleep, Alzheimer's disease and stroke.

Australian International Model Solar Challenge The competitive spirit is an effective motivator and science, engineering and design & technology teachers all over Australia have classes filled with extraordinarily enthusiastic students building model solar cars and boats. Not only is the learning fun but the learning outcomes are tremendous. Teachers report how students motivated by the competition build an intuitive knowledge of the sciences that permeates the classroom. Model solar boats are ideal for the younger students. These are far simpler to build but the thrill of competition and the learning outcomes are just as great. The national event brings together all of the Australian state and territory champions and, when financially possible, top entries from other countries.

Australian Science Olympiads Though open to all, the exams typically benefit high achievers in science from Years 10 and 11 and those who have high aspirations and enjoy a challenge. Year 12 students are welcome to sit the exam'. 4 separate exams in areas of Science. Information regarding these and other activities are found on this site. Individual exams include Australian Science Olympiad Exams - Biology,

Australian Science Olympiad Exams - Chemistry, Australian Science Olympiad Exams - Earth and Environmental Science and Australian Science Olympiad Exams - Physics.

Australian Space Design Competition Would you like to design your own futuristic space station? Space Design Competitions Australia are the premier provider of industry-simulation events for high school students in Australia. Our competitions aim to provide interactive, high-tempo, and dynamic environments for students to further their Science, Technology, Engineering, and Mathematics (STEM) skills. Since 2002, we have partnered with several organisations and schools across Australia to nourish and prepare the next generation of innovative young minds. There are Junior, Intermediate and Senior Competitions.

Australian Stockholm Junior Water Prize Students are invited to undertake a water-related research project focusing on solving community water problems. The scope of the project may be on a local, regional, national or global topic but must have the potential to improve quality of life and/or the environment. All projects must use a research-oriented approach, which means that they must use scientifically accepted methodologies for experimentation, monitoring and reporting results. including statistical analyses. Students are then required to submit an extended abstract or full paper and provide a ten-minute presentation of their project to the judging panel via video conference. Finalists receive an awards certificate. National winner receives a glass trophy, a return flight to Stockholm and accommodation to participate in a one-week cultural exchange program and to represent Australia in the international Stockholm Junior Water Prize. If the national winner is a group of students, one representative receives flights and accommodation, other group members may go to Stockholm at their own expense. The winner's school receives a trophy. The winner of the international Stockholm Junior Water Prize receives US\$15,000 and a crystal sculpture. The winner's school receives US\$5,000.

Australian National Chemistry Quiz The ANCQ is a unique chemical education activity. It provides a major focus for secondary school students on the relevance of chemistry in an exciting and stimulating way. The Quiz is not a nationwide assessment of chemistry knowledge, but rather an opportunity to promote chemistry and for teachers to gauge the understanding their students have of the subject. The Quiz is available in both hard-copy and online formats. With over 1,600 schools entering over 110,000 students last year, we recommend that you consider students from your school for this prestigious competition. The age divisions are; Junior Years 7-8, Junior Years 9-10, Senior Year 11 and Senior Year 12.

**Big Ideas Forum [ANSTO]** The ANSTO Big Ideas Forum brings 22 students and 11 teachers from across Australia to Sydney to meet world-class researchers and go hands-on with amazing technology. We are looking for people who are creative and passionate. Year 10 students. Application previously closed in mid-September. Competition previously held in mid-November. Exact dates once these are advised.

**Big Science Competition** Encourages critical thinking and problem-solving skills. The Big Science Competition is an easy way to challenge students from years 7 to 10.

**Big History** Today we have more information available to us on our phones than was available in all the great libraries of Alexandria. How do we decide what claims we can trust? Big History teaches students to examine their intuition, looking at the authority, evidence, and logic of claims across disciplines and scales. Students learn

to apply a thoughtful, consistent, and rigorous approach to engaging with new ideas and information and using evidence to construct effective arguments. **Register now** to explore the course.

BHP Billiton Science and Engineering Awards
The BHP Billiton Science and Engineering Awards are Australia's most prestigious school science awards. The BHP Billiton Science and Engineering Awards reward young people who have undertaken practical research projects, which demonstrate innovative approaches and thorough scientific procedures. There are many great prizes to be won in each category: First prize \$4000.

Chemistry Physics Biology Olympiad Exams Year 10 and 11 students are invited to challenge themselves by sitting one or more of the four Australian Science Olympiad Exams now on offer. Testing students' knowledge, critical thinking and problem-solving skills, the exams are held in the disciplines of biology, Earth and environmental science, chemistry and physics. The exams last two hours and are carried out under strict examination conditions at your school. The Australian Science Olympiad exams are the first step in being selected to represent Australia at the International Science Olympiads.

<u>ConocoPhillips Science Experience</u> This nationwide STEM outreach program is a three or four-day program of hands-on science activities being conducted in 35 universities in 2016/2017. It is aimed at students in Years 9 and 10.

<u>CREST CSIRO Awards</u> CREativity in Science and Technology A non-competitive awards program supporting students to design and carry out their own open-ended science investigation or technology project. Focuses on the Science Inquiry Skills content descriptors of the Australian Curriculum.

<u>Crystal Growing Competitions</u> Links to these in 6 states and territories. Primary and Junior Secondary students. Information and contacts for each state/territory via the links on the home page. The competition previously closed in early July and results were published during National Science Week in mid-August. Exact dates once these are advised.

<u>Education Perfect - Science World Championships</u> One of a series of Championships covering a variety of areas. Points gained can be accumulated from multiple championships towards overall achievement both as schools and individual students. The competition previously ran from late May to early June. Exact dates once these are advised.

**EngQuest** EngQuest, an initiative of Engineers Australia, provides an exciting way for students to participate in free, fun and educational engineering activities involving science, technology and mathematics. On this site you will find curriculum-appropriate engineering projects covering a range of topics including solar cookers, water wheels and humanitarian engineering. Every project includes easy to read instructions, background information (for teachers and students) and lesson ideas with activity sheets. There are projects and resources suitable for lower primary, primary and middle years students. There is also plenty of interactive educational fun that your students are certain to enjoy in the student section of the site!

<u>Eureka Sleek Geeks Science Prize</u> Presented annually by the Australian Museum, the Australian Museum Eureka Prizes reward excellence in the fields of research & innovation, leadership, science communication and school science. Main website is found at an <u>Australian Museum</u> website. Multiple Teacher resources are available. Primary and Secondary competitions. Multiple competition options.

**Expedition Class** We love science and environmental education so much that we share it with classrooms everywhere... like you've never experienced it before. Students engage with researchers and adventurers through Australian Curriculum aligned online lessons.

First Lego League [Australia] FIRST® LEGO® League is a competition catering for upper-primary and lower-secondary school students. Every year, teams of up to 10 students build, program and compete with a robot, while also learning about a modern problem in science and engineering and developing solutions for it. The entire competition for the year is based around one of these themes: Past themes include natural disasters, senior citizens, food health & safety, climate change, medical science, and nanotechnology. Tournaments are run with the feel of a sporting event, and teams compete like crazy while having the time of their lives. What FIRST® LEGO® League teams accomplish is nothing short of amazing. It's fun. It's exciting. And the skills they learn will last a lifetime.

FIRST Tech Challenge FIRST® Tech Challenge is designed for high school students to compete head to head, using a sports model. Teams are responsible for designing, building, and programming their robots to compete in an alliance format against other teams. The robot kit is reusable from year-to-year and is programmed using a variety of languages. Teams, including coaches, mentors and volunteers, are required to develop strategy and build robots based on sound engineering principles. Awards are given for the competition as well as for community outreach, design, and other real-world accomplishments. Students get to: Design, build, and program robots, Apply real-world maths and science concepts, Develop problem-solving, organizational, and team-building skills, Compete and cooperate in alliances and tournaments, Compete for a spot in the World Championship and Qualify for over \$13.5 million in international university scholarships.

Girls in Science, Technology, Engineering and Maths Curious Minds is a sixmonth program for girls that combines two residential camps and a mentoring program. The camps will enable girls to explore all aspects of science, technology, engineering and maths through guest lectures, interactive sessions, practicals and field trips. The mentoring program will see each student matched with a female mentor recruited from a variety of STEM backgrounds and together they will construct personal goals for the student. This might include discussing study options and career pathways, undertaking further extension work with support from their mentor, developing ideas based on learnings from the camp or working on a project.

GolT Girls Work Experience program and Challenge The TCS GolT Girls program aims to inspire young women to pursue STEM careers in technology. The week-long program enables girls in Year 10 and 11 to learn from role models,

sharpen their coding and technical skills, develop skills for employment and challenge their perceptions of technology and occupational gender stereotypes.

Google Science Fair We're extremely lucky to partner with LEGO Education, National Geographic, Scientific American and Virgin Galactic to offer some unbelievable awards. If your Science Fair submission is something you built to solve an engineering challenge, you'll be eligible to win the Virgin Galactic Pioneer Award or the LEGO® Education Builder Award. If your project offers a new way to look at the world, asking questions and answering them with experimentation, you'll be eligible to win the National Geographic Explorer Award or Scientific American Innovator Award.

I GEM Biology
The I GEM competition is an annual, world-wide, synthetic biology
event aimed at undergraduate university students, as well as high school and
graduate students. Multidisciplinary teams work all summer long to build genetically
engineered systems using standard biological parts called Biobricks. iGEM teams
work inside and outside the lab, creating sophisticated projects that strive to create a
positive contribution to their communities and the world.

International Astronomy and Astrophysics Competition The International Astronomy and Astrophysics Competition is an international science competition that enables students from all countries to prove their skills and to unleash their creativity in the fields of astronomy and astrophysics. IAAC gives you the unique opportunity to apply your skills to challenging problems'. Two levels - Junior: under 18 years on submission deadline; Youth: over 18 years on submission deadline'. Qualification Round previously in mid-April with results announced later in the month. Pre-Final Round ran through May with Final held during June. Exact dates once these are advised.

IYPT Australia The International Young Physicists Tournament was a tournament created in the USSR to foster scientific research and improved international communication in Physics. It is an annual team competition for high school physics students. Australia first entered IYPT in 1998. The purpose of IYPT is to develop scientific thinking, research skills, communication skills and teamwork. It is a unique tournament for high school students of physics.

Junior Space Design Competition Designed for aspiring young engineers and scientists, who want to learn about the basics of futuristic space settlement design! Teams of up to 4 develop a marketing brief for the space settlement scenario. See details in the Challenges section above. Registrations previously closed late in June, Qualifying Tenders in late August and Finalists announced in late September. Presentation Event previously held in late October. Exact dates once these are advised.

Macquarie Uni Astronomy Night Please join us for an incredible evening of astronomy, astrophysics, photonics, astrophotonics and all things physics – including a large outdoor area full of telescopes, where you can observe celestial objects for yourself! Weather permitting, there will be up to 30 telescopes aimed at the glittering night sky, operated by both Macquarie University astronomers and amateur astronomers alike. Meet and chat with real-life astronomers, observe stars, planets,

nebulae, star clusters and much more, and discover the night sky like you never have before!

**NSW RACI Titration Competition** Students compete in teams of three and, in ninety minutes, must complete a set of acid-base titrations to determine the unknown concentration of a weak acid. The team's score will depend on the accuracy of the work of its members. The best score wins medals for the team.

Olympiads Online Olympiads Online helps students get into shape for the Australian Science Olympiad Exams. You can practice exam questions, work through quizzes, delve deeper with videos, links and glossaries. Olympiads online is free and available to all Australian students. Use Olympiads Online and go in the draw to win one of three laptops valued at \$1,500 each.

<u>Paper Plane Challenge</u> To qualify for the STANSW Young Scientist Paper Plane State Championship you'll need to throw over a specific time or distance. Held at the University of Sydney. See <u>this Young Scientist Awards page</u>

**RACI Crystal Growing Competition** The aim of the competition is to grow your very own crystals in six weeks.

RoboGals (STEM) Robogals is a student run organisation that aims to inspire and empower young women to consider studying engineering and related fields. A part of this is the Robogals Science Challenge. The Robogals Science Challenge is an online competition for girls aged 5-15. The competition consists of 2 components: the minor challenges and a major challenge. Spanning 4 months, the Science Challenge will give participants a chance to explore different STEM topics. Competition previously launched in early March with the Minor Challenges. Second round were issued in late March. Major Challenge opened in late April with a final entry deadline at the beginning of August. Science and Engineering Day held in July. Finalists were announced and awarded in October/November. Exact dates once these are advised.

<u>Save the Bilby Fund</u> We encourage all Australian school children to participate. The site provides a wonderful research opportunity for students and will help to educate them about our endangered Australian wildlife.

Science boot camp is an immersive CSIRO science experience for secondary school students. CSIRO Education and Outreach host science boot camp in various capital cities throughout the year. The two-day program exposes secondary schoolaged students to authentic scientific research in contemporary research facilities and gives the students the chance to meet and talk with CSIRO researchers. Students visit working laboratories and see the research currently being performed by scientists, researchers and technicians.

<u>Science Extension Worksheets</u> The Australian Science Teachers Association (ASTA) in partnership with Education Services Australia (ESA) has prepared 15 units of work to support gifted and talented students in the implementation of the Australian Curriculum: These units have been written by experienced teachers using resources that are available online.

Science Olympiads The Australian Science Olympiad Competition is a national extension program for top performing secondary science students which culminate in the International Science Olympiads – the Olympic Games for science students. To earn a spot representing Australia at the International Science Olympiads, year 10 and 11 students must first sit one or more of the four Australian Science Olympiad Exams on offer in the disciplines of biology, chemistry, Earth and environmental science and physics. Based on their exam performance, top performers are offered a place at the Australian Olympiad Summer School. This is a two-week intensive residential program that gives students the opportunity to study with others passionate about science. The very best summer school students represent Australia at the International Science Olympiads.

<u>ScienceXart : elements in everyday life</u> Australian Academy of Science. This competition is a fantastic opportunity for students of all year levels to engage hands-on with the periodic table, develop a deeper understanding of key principles of chemistry, and foster an appreciation of the wider impact of chemical sciences throughout life and society. The competition format has been developed in consultation with ASTA and teachers from across the country to align with the science syllabus of schools.

Shorebirds Competition [ANSTO] Open to students in Years 3 to 6 in the Greater Sydney/Illawarra and Melbourne areas, this competition aims to help raise awareness of the plight of shorebirds and inspire a younger generation of environmentalists. This is a fantastic opportunity for teachers to highlight a contemporary environmental issue and provide cross-curriculum teaching in Science, Geography and Art. Previously ran from late May to the second half of September. Competition closed in late August, Winners were announced on World Shorebirds Day [September] and top entries were displayed at the Australian Synchrotron Open Day in the second half of October. Exact dates once these are advised.

**Space Camp** This will be a once in a lifetime opportunity for teachers and students in years 9-12. During Space Camp, participants will be provided with opportunities for science enrichment and leadership development which will be supported with visits to science centres, schools and universities. During this weeklong program, trainees are provided with hands-on training as well as learning about the mental, emotional and physical demands astronauts must face. Fields of study include Engineering, Space Technology and Aerospace Science.

<u>Space Design Competitions Australia</u> Hosts a number of industry simulation experiences for school students. These combine elements of Science, Technology, Engineering and Mathematics [STEM], with an emphasis on teamwork, marketing, and human relations to provide a unique set of challenges for young people. Linked to the Australian Space Design Competition.

SPECTRA Awards SPECTRA, or Science Program Exciting Children Through Research Activities, is a national science award program developed and administered by ASTA for students between Years 1 and 10. SPECTRA can be used: as a class activity, to extend capable students, to encourage and inspire students that find science a challenge in school science. There are two levels in the program: SPECTRA and Junior SPECTRA. Each level has a range of science topic

cards where student's complete activities related to their chosen topic. The students carry out a range of practical and observational activities, research, experiments and projects. When the required number of activities has been completed to the satisfaction of the teacher/parent, the student is awarded a certificate and badge. The cards are provided in full colour with engaging images. Junior SPECTRA has Spike the Echidna on every card.

STANSW Young Scientist Awards The Young Scientist committee is very pleased to announce a major STEM initiative that should inspire inquiry-based learning in Science, Technology, Engineering Studies and Maths classes across New South Wales. From 2016, the restructured STANSW Young Scientist Awards will now feature the categories Working Scientifically, Working Technologically and Working Mathematically. Huge prizes!

**STEM Video Game Challenge** The Challenge is open to upper primary and secondary school students. Students are encouraged to design, build and submit an original educational video game that includes science, technology, engineering and mathematics [STEM] content or themes.

<u>Sustainable Futures</u> is an educational program that combines the latest in climate science with education in sustainability. This program was formerly known as CarbonKids. The Sustainable Futures program is suitable for schools to use with students in years 3 – 9. Schools must register to be part of the program. Upon registration schools will receive a set of educational resources which offer a range of ideas and activities to support the teaching of sustainability and the environment in Australian schools.

<u>Sydney Uni Gifted and Talented Science Discovery Programme</u> If you're fascinated by science and want to go beyond what you cover at school, the Gifted and Talented Discovery Program is for you. As a talented high school science student in Year 9 or 10, you will enjoy additional challenges and stimulation in the areas of biology, chemistry and physics in this three-day workshop.

Taronga Zoo Keeper for a day Cadets Do you want to work with animals when you're older? Do you like the Zoo but you're not sure where to start? Keeper for a Day Cadets might be what you are looking for! Keeper for a Day Cadets is a specially designed hands-on day for children aged 12 - 17 years' old who'd like to work with flora and fauna or in job that means they contribute to the protection of the natural world when they grow up! Hosted by our team of dedicated Educators, participants learn the daily routines and expectations of a Taronga Keeper. Through a range of interactive activities and special behind the scenes visits, Cadet Keeper for a Day participants will meet some of Taronga's animals up close and learn how we can care for them and protect them into the future. The day includes an "official" Keeper for a Day shirt and morning snack.

<u>Taronga Zoo Meet-a-Keeper</u> Meet a Keeper is a one-day program for school students aged 14 years and over who have expressed a keen interest in pursuing a career at the Zoo or in the captive animal care industry. This unique program includes a seminar presented by a talented panel of Zookeepers, Zoo educators and other Zoo staff members. Students could learn about all aspects of zoo-keeping,

including: Qualifications required, Career opportunities, Core responsibilities and Careers structures and wages. These themes and more are explored in the morning session, which runs from approximately 10.00am to 11.30am. Afterwards, guests are invited to explore the Zoo as they make their own way to a mystery behind-thescenes animal tour. Tour times vary and are arranged at time of booking. Mystery tours run for approximately 25-35 minutes and are arranged by staff on the day.

TAS Forensic Science Camp The camp was first held in 1994 and attracted widespread interest after featuring on the former ABC TV science show *Quantum*. Such has been its success that each year it regularly attracts more than 80 bright Year 8-9 students from Brisbane to Ballarat, and many places in between. Boys and girls, from both government and independent schools in the city and the country, are divided into groups of four detectives. They then solve fictitious felonies using a range of forensic techniques, including microscopy, chromatography, fingerprint analysis, cryptography and general science. Held in Armidale.

The Science and Engineering Challenge What is the Science and Engineering Challenge? The Science and Engineering Challenge is a nationwide STEM\* outreach program presented by the University of Newcastle in partnership with communities, Rotary clubs, universities and sponsors. Through the Challenge, students experience aspects of Science and Engineering which they would not usually see in their school environment. The Challenge runs a range of programs but focuses on inspiring students in year 10 to consider a future career in science and engineering by choosing to study the enabling sciences and mathematics in years 11 and 12.

The UNSW Bragg Student Prize for Science Writing The Bragg Prize is an annual award celebrating the best non-fiction science essay written for a general audience and is designed to encourage and celebrate the next generation of science writers, researchers and leaders. Students write a short piece about 'Not-so-smart technology', which must be 800 words or less. Open to all high school students in Years 7–10.

**TOMS Tournament of Minds** is a problem solving programme for a team of seven students from Year 7 to Year 10. They are required to solve demanding, open-ended challenges from one of the following disciplines: The Arts, Language Literature, Social Sciences and STEM. Tournament of Minds is an opportunity for students with a passion for learning and problem solving to demonstrate their skills and talents in an exciting, vibrant and public way. Teams are required to work together on a **Long-Term Challenge** for six weeks without assistance from teachers, parents or peers. They are encouraged to explore possibilities and experiment with ideas as they endeavour to produce their best possible solution. They develop a creative and original way to communicate this solution to others, working within predefined parameters such as limited materials, complex challenge criteria and the deadline of Tournament Day. Students present the product of their ideas - their challenge solution - to a panel of judges and an audience on Tournament Day. They have ten minutes in which to present and must do so within a 3 metre by 3 metre performance area. The teams must also participate in an unseen Spontaneous Challenge on Tournament Day. This challenge requires rapid interchange of ideas, the ability to think creatively and well-developed group cooperation skills.

**USYD Eureka Sleek Geeks Competition** The University of Sydney Sleek Geeks Science Eureka Prize is offered to primary and high school students nationally. If you have a passion for science and for communicating ideas, then enter this competition by telling a scientific story via a short video piece. We're looking for the next generation of Dr Karl's and Adam Spencers! The idea is to communicate a scientific concept(s) in a way that is accessible and entertaining to the public while painlessly increasing their science knowledge or, as the Sleek Geeks like to say, "learn without noticing". First prize: \$4,000 plus a \$500 book voucher from Abbey's Bookshop, Sydney, Second Prize: \$2,000, Third Prize: \$1,000.

<u>UTS School Outreach Programs</u> Engineering Discovery Day This one day event is ideal for Year 10–11 high school students who enjoy finding creative solutions to problems and who want to find out more about engineering and IT courses and careers. Students learn through on-campus hands-on workshops in areas such as humanitarian engineering, mousetrap race cars, robo-bowls, game design, programming, creativity and project management. | Phone: 02 9514 2666 | email: feit@uts.edu.au

<u>UTS School Outreach Programs</u> Engineering Hands-On Day for Girls This one day event provides an opportunity for female students in years 8–12 to participate in a range of hands-on activities and get an inside look at life as a female in a maledominant field. Phone: 02 9514 2602 | email: <u>WIE & IT</u>

<u>UTS School Outreach Programs</u> Health activities Discover sessions 'Discover' workshops are run for students considering a career as a registered nurse or midwife. Students take part in an interactive panel discussion followed by an informal and hands-on tour of UTS' state-of-the-art clinical facilities. Phone: 02 9514 4911 | email: <a href="mailto:health@uts.edu.au">health@uts.edu.au</a> | website: <a href="mailto:Discover sessions">Discover sessions</a>

<u>UTS School Outreach Programs</u> Science activities: Science Outreach UTS Science Outreach offers many opportunities for science and mathematics engagements with school students which includes hands-on workshops, science challenges, careers forums, demonstrations. Open to school students from years 7 to 12 but with a focus on years 10-12. Activities are designed to excite and inspire students, and exposed them to applications of science and maths in our everyday life. Phone: 02 9514 8276 | email: <a href="mailto:science@uts.edu.au">science@uts.edu.au</a> | website: <a href="mailto:Science outreach\_webpage">Science outreach\_webpage</a>

<u>Women in STEM Activity</u> Day of STEM explores the careers of women STEM leaders who are at the forefront of the industry. The program explores six dynamic female role models and their individual career journeys with companies on the cutting-edge of technological innovation in Australia.

Youth at the Zoo Youth At the Zoo (YATZ) is a fun, educational program for 13-19 year olds where members can participate in activities both inside and outside of the Zoo throughout all school holidays and occasionally during the school term. Only applicants whose details are entered into this link will be notified when the application process begins.

VEX Robotics Australian Competition The VEX Robotics Competition is the ultimate STEM activity for middle school and high school students (ages 11-18). Each year, an engineering challenge is presented in the form of a game. Students, with guidance from their teachers and mentors, use the VEX Robotics Design System to build innovative robots designed to score the most points possible in qualification matches, elimination matches and Skills Challenges. In addition to having a great time and building amazing robots, through their participation in the VEX Robotics Competition and their work within their team, students will learn many academic and life skills

Zayed Future Energy Prize The Prize hopes to encourage young people to learn about sustainability and clean energy from an early age. We ask schools to submit proposals for funding consideration to implement sustainability measures in their schools. Open to all high schools with students between 11-19 years old. The application must be supported by the school and its management.

## **Technology and STEM**

AIT After School Film and Animation Workshops Learn about careers and study options in film production, 3D animation, digital media, game design, mobile apps and IT.

Aurecon - Bridge Building Competition The competition is open to year 8 and 9 students and will be held on the 9th of August at the Art Gallery of New South Wales. Aurecon will supply bridge building kits by the end of May each year to all schools registered for the competition. In order to involve as many students as possible from your school, we suggest that an internal school competition be held. The winning team can then represent your school in our competition. Winners will receive: \$1000 prize to school, \$100 each to students.

<u>Australian Informatics Olympiad</u> A national computer programming competition held annually in early September. Students write short computer programs to solve three problems that vary in difficulty. There are two papers: Intermediate for students up to Year 10, and Senior for students up to Year 12.

<u>Australian STEM Video Game Challenge</u> Facilitating engagement with Science, Technology, Engineering and Mathematics, students learn vital skills for the future through designing, building and testing an original video game. A full copy of the Challenge rules and submission guidelines are included in the <u>Mentors Handbook</u>.

Bebras Australia Computational Thinking Challenge An international initiative whose goal is to promote computational thinking for teachers and students ages 8-17. Bebras is aligned with and supports curricula across Australia. It's a great way to get students interested and participating in information and communication technology (ICT) which could lead to an interest in pursuing a career in the exciting ICT industry!

**Big History** Today we have more information available to us on our phones than was available in all the great libraries of Alexandria. How do we decide what claims we can trust? Big History teaches students to examine their intuition, looking at the authority, evidence, and logic of claims across disciplines and scales. Students learn to apply a thoughtful, consistent, and rigorous approach to engaging with new ideas and information and using evidence to construct effective arguments. **Register now** to explore the course.

<u>Chain Reactions Families Competition</u> Digital Technologies Hub. Have you ever played the game Mouse Trap? It uses a combination of mazes, levers, wheels and ramps, connected to form a chain reaction of events that end up triggering a trap to catch a plastic mouse. We're challenging families to come up with their own version of a similar machine during the school holidays. Submit a video of your machine for a chance to win some great prizes! Your machine will need at least five different steps that activate a chain reaction.

<u>Code Quest</u> Code Quest is an annual computer programming competition where teams of 2-3 High School students each work together for 2.5 hours to solve

problems by using JAVA, Python, VB.net, C, and/or C++ programming to complete the "quest". The problem set consists of 15-20 challenging problems created by Lockheed Martin engineers and computer programmers. All other details from the **Australian** site. Free to enter but entrants need to pay for their own accommodation.

Computational and Algorithmic Thinking [CAT] Formerly the Australian Informatics Competition [AIC]. A one-hour problem-solving competition which seeks to identify computer programming potential. There are four papers: Upper Primary, Years 5-6; Junior, Years 7-8; Intermediate, Years 910; Senior, Years 11-12.

**EngQuest** An initiative of Engineers Australia, delivered free of charge to Australian schools. Lower primary, primary and middle years students work, applying their problem-solving skills to designing, constructing and unravelling exciting engineering projects.

F1 in Schools [REA Foundation] The world's largest secondary school technology program. Involves over nine million students from 17 000 schools in 31 nations. Students as young as 10 are designing, testing and making miniature F1™ cars capable of 80km/h. But it is not about fast cars. F1 in Schools™ is a holistic action learning program which focuses on developing long term employability skills. Students learn leadership, team building, project management, business planning, public speaking, marketing, collaboration, writing and presentation skills. Many students engaged in this program have been offered employment by industry before completing their studies... others are pursued by universities with competing scholarships... and one has even been head hunted into the real world of Formula1™ racing as an aerodynamics engineer.

FIRST Robotics Competition The FIRST® Robotics Competition is the flagship competition of FIRST. A large-scale robotics competition, FIRST® Robotics Competition brings together students and mentors to build robots that perform in a competitive but gracious environment against teams from all over the world. In building their robot and doing all the other things that go with an FIRST® Robotics Competition team, students learn valuable life skills like teamwork, collaboration, public speaking, technical science and engineering skills, Gracious Professionalism®, and others. In Australia, FIRST® Robotics Competition teams compete at the Duel Down Under off-season events or official Regional competitions in Sydney or the USA.

<u>Global Cardboard Challenge</u> Celebrates child creativity and the role communities can play in fostering it. Kids of all ages are invited to build anything they can dream up using cardboard, recycled materials and imagination. Resources available from the site.

GolT Girls Work Experience program and Challenge The TCS GolT Girls program aims to inspire young women to pursue STEM careers in technology. The week-long program enables girls in Year 10 and 11 to learn from role models, sharpen their coding and technical skills, develop skills for employment and challenge their perceptions of technology and occupational gender stereotypes.

Google Code-in Pre-university students ages 13 to 17 are invited to take part in Google Code-in, our contest introducing young minds to the world of open source. With a wide variety of bite-sized tasks, it's easy for beginners to jump in and get started no matter what skills you have. Mentors from our participating organizations are available to lend a helping hand as you learn what it's like to work on an open source project. Want to work with a real open source software organization while earning cool prizes? Try your hand at Google Code-in.

Grok Code Quest A friendly five-week competition where thousands of school students come together to learn to code. Teachers can sign up their students, and students competing individually at home are also welcome. Programming challenges are released at the beginning of each week, along with interactive notes that teach you everything you need to complete them. Multiple streams available.

Imagine Cup Australia Imagine Cup is a global student technology program and competition that provides opportunities for students across all disciplines to team up and use their creativity, passion and knowledge of technology to create applications, games and integrate solutions that can change the way we live, work and play. Students must be at least 16 years of age and satisfy several other requirements. Individual and team competitions. You need to be able to sign into a Microsoft account to access the site.

Little BIG Idea Little BIG idea is a national schools competition run by Origin that aims to foster creativity and innovation in students from Years 3-8. The competition provides a platform for students to continue Australia's rich tradition of innovation which has seen solar hot water, the black box flight recorder, the fridge and the bionic ear, amongst others, invented and developed on these shores. Origin Energy for Schools. If you're in Years 7 to 8, chances are you've got some great ideas bouncing around that brain of yours. And we want to hear all about them!

Microsoft AI for Good Schools Challenge In the 2020 Microsoft AI for Good Challenge, Australian students in Grades 7-12 are supported by their teachers to learn the basic concepts of Artificial Intelligence. Equipped with this learning, they then embark on a design-thinking challenge to dream up a creative way that AI could be used to make a difference in the world. Check information about the Hackathons.

National Computer Science School Challenge Programming (also known as coding) is how sites like Facebook and apps like Instagram are made. Knowing how to program is like having a computing superpower. The Challenge is unlike any other programming competition. We'll teach you how to program as we go along, rather than expecting you to be an expert already. If you're a seasoned coder, we have something for you too – the problems range from relatively simple to mind-bendingly hard.

<u>OzCLO - Australian Computational and Linguistics Olympiad</u> Designed for high school students from Year 9 to Year 12. It challenges them to develop their own strategies for solving problems in fascinating real languages.

RoboCupJunior Australia Students are required to design and program two robots to compete against an opposing pair of robots by kicking an infra-red transmitting ball

into their designated goal. Teams have a choice of using two attacking robots or an attacker teamed with a goalie. The field is the size of a table tennis table. The field is white, shades of green and black to allow for navigation using light sensors. Due to its ease of introduction to the uninitiated, most students choose to use LEGO Mindstorms to build and program their robots. Although the LEGO Mindstorms set can continue to be very competitive while being modified to high degree of complexity, other students select alternative platforms and even build their own microprocessor robots from basic electronic components. A range of sensors can been attached to all of the robotic platforms. These include electronic compasses, sonar, modified light sensors and motor rotation sensors.

Search for the Next Tech Girl Superhero Technovation is the world's largest and longest running tech competition for girls. Teams of young women identify a problem, create an app to solve it, code the app, build a company to launch the app in the market, and pitch their plan to experts all in 3 months. Technovation's applied, project-based computer science and entrepreneurship curriculum reinforces digital representation of information, algorithmic thinking and programming, and emphasises the societal impact of information and information technology. It teaches girls life skills such as how to identify problems, design and test solutions, collaborate in a team and communicate to different audiences.

<u>So You Think You Can Design - Textiles</u> The So You Think You Can Design - Textiles challenge is now live! And if you want to engage your students in the world of wearable technologies, then don't miss it. Download further information at <u>this</u> link.

<u>Student Blogging Challenge</u> The Student Blogging Challenge is about embracing all of the benefits of publishing online - from learning digital writing skills, and digital citizenship, to developing an authentic audience and connecting with others around the globe. The Student Blogging Challenge has run twice yearly, beginning each March and October.

Technovation The Global Technology Entrepreneurship Program for Girls. Any girl or young woman [ages 10-18] interested in Technovation Girls is eligible to compete. All students must be between the ages of 10 to 18 as of August 1, 2020. All students must identify as female. No males can enter the competition. Teams are composed of 1 to 5 students. Students can only join 1 team. Competition Divisions are based on the age of the oldest student on the team. Students can participate in Technovation Girls for multiple seasons until they reach the age of 18.

The Mars Rover Challenge The goal of the main challenge is to program a robot to navigate the Martian terrain. This can be done by writing a program or group of programs to make the rover autonomous and collect data. To encourage good coding practices, students will be given a higher score for well documented and formulated code. All other details and registration form from the site.

<u>Universal Robotics Challenge</u> Participants will design, build and code unique robots for the 2020 mission. The mission is top secret now but will be revealed early in 2020. Teacher and student inductions and professional training will be supplied at no cost and the program is supported by comprehensive learning materials.

<u>VEX Robotics Competition [Tower Takeover]</u> Middle school, high school, and college/university. More than 11 500 teams from 40 countries playing in over 750 tournaments. Local, regional, national, and world competitions. The object of the game is to attain a higher score than the opposing Alliance by placing Cubes in Towers or scoring Cubes in Goals.

<u>Web.Comp</u> A web competition for high school students. Web.Comp will run for 5 weeks, starting February/March. Each week, we'll release interactive notes with the information you'll need to complete the week's web design challenges. The last week will be a web design tournament where you can submit your own design and vote on everyone else's! Students can sign up now via the above site.

Wool4School Student Design Competition Wool4School is a real-life fashion design experience, with big rewards available for both students and teachers. Open to students in years 7, 8, 9, 10 and 11. Wool4School sets the challenge to design an original outfit made from one of the world's most innovative and natural fibres - Australian Merino wool - and go in the running to win part of \$10,000 worth of prizes. Teachers can also take part in the competition, by incorporating the lesson plans into their classroom. Resources are also available to support the lesson plans that coincide with the Australian Curriculum.

WorldSkills Australia Have you ever wondered what it takes to build a beautiful bathroom, how a garment is created for the runway or how industrial robots are built to assist with day-to-day jobs? You can find out at the WorldSkills Australia National Competition, Melbourne – the largest trades and skills showcase in the country. Australia's Largest Trade and Skill Competition! Competitions are held on a regional, national and international level. All three levels of competition run biennially.

Young ICT Explorers The competition's alignment with the school curriculum enables students to apply what they learn in their ICT/Digital Technologies classroom to develop a technology related project of their choice. At the judging event, students have the opportunity to present their project to a judging panel of academia, industry partners and ICT professionals. Each project is assessed on the criteria of creativity, uniqueness, quality, level of difficulty and project documentation.

**Zero Robotics** Zero Robotics is a free international robotics programming competition which challenges participants to test their coding skills on NASA robots known as SPHERES [Synchronised, Position, Hold, Engage, Reorient Experimental Satellites] aboard the International Space Station. Teams from high schools around the world program the SPHERES to solve the challenge. Led in Australia by the University of Sydney's Faculty of Engineering and Information Technologies. Further information can be found at **Zero Robotics**, based at MIT in the United States.

## General Resources for Parents of Gifted and Talented Students

- Amby's Gifted Resources Provides a list of well annotated web sites related to gifted children.
- Australian Mensa for Parents and Students
- **GERRIC** Gifted Education Research Resource and Information Centre
- <u>GT World</u> An online support community for parents of gifted children, including a website, several discussion lists and a MOO.
- Hoagies A labor of love that is a wonderful resource for gifted kids, and their parents and teachers. Includes the latest research on parenting and education practices.
- Hoagies Software Reviews Check what others have said about the software out there.
- NSWAGTC NSW Association for Gifted & Talented Children FAQ
- Nurturing Gifted Children Parenting tips on helping and nurturing gifted children.
- <u>REACH Education</u> A New Zealand Gifted Education consultancy with an international reputation, which includes information and support for parents and links to local associations and additional resources.
- <u>SENG</u> Supporting Emotional Needs of the Gifted Offering webinars, support and conferences for parents in supporting the needs of the gifted

# **General Resources for Gifted and Talented Students in Years 7-12**

- Artist's Toolkit Explore visual elements with interactive demos and a create your own tool.
- <u>ExploreScience</u> Great interactive learning experiences with Shockwave m multimedia activities.
- Geometry from the Land of the Incas

   Great Flash enabled site on Euclidean geometry.
- <u>Hoagies Investigations</u> Reference libraries and individual links for all your school subjects.
- Illuminations US mathematics mega site.
- <u>Lateral puzzles</u> A large and free collection of puzzles with interactive chat problem solving.
- The Mint An integrated US web-site covering personal finance and economic themes designed for middle and high school students, their teachers and parents.
- MIT Open Courseware Massachusetts Institute of Technology course material progressively put online for public use
- Moneyopolis US site using a game format for junior high math in a personal finance setting
  - "the place for money-sharp kids" authored by Ernst and Young
- Physics Classroom Attractive online tutorials on several physics topics.
- The Science Site Fortnightly science e-zine with Pacific/New Zealand focus
- <u>TeleMentors</u> a site linking students with a particular interest electronically to volunteers working in the fields
- <u>Virtual Training Suite</u> Easy, free and excellent tutorials for senior students wanting to master internet resources in their chosen professional field or interest area