

## QMEA CALENDAR OF EVENTS 2018

### Term 1

Monday 22 January – Thursday 29 March

	Monday	Tuesday	Wednesday	Thursday	Friday					
<b>Week 1</b> 22 – 26 Jan	Welcome Back!									
<b>Week 2</b> 29 – 2 Feb	BMA Work Readiness Programme									
<b>Week 3</b> 5 – 9 Feb	BMA Work Readiness Programme									
			Teacher Webinar							
<b>Week 4</b> 12 – 16 Feb	BMA Work Readiness Programme									
<b>Week 5</b> 19 – 23 Feb	BMA Work Readiness Programme									
		SK4S Brisbane, AHSHS	Mining for Code, Capella & Clermont		Beakers.Bots.Build Blackwater      Water4All Good Shepherd					
<b>Week 6</b> 26 Feb – 2 Mar	BMA Work Readiness Programme									
	SK4S Brisbane, Logan	Beakers.Bots.Build Good Shepherd	Water4All Pioneer SHS		SK4S Brisbane, WSHS					
<b>Week 7</b> 5 – 9 Mar	Drones, Data and 3D Alex Hills students		SK4S Brisbane, Bundamba	IWD Breakfast Inspire Convention Hastings Deering student tour Rockhampton	Pit to Port Gladstone hosted at CQU					
<b>Week 8</b> 12 – 16 Mar	Drones, Data and 3D Cloncurry Teacher PD	S4SK Moranbah	T4SK Moranbah	Drones, Data, 3D Cloncurry Student Wshop	CulturalHeritage Survey Tour Middlemount South Mine	Drones, Data, 3D Spinifex Student & Teacher Wshop	S4SK Emerald	T4SK Emerald	Water4 All Wavell	
<b>Week 9</b> 19 – 23 Mar		T4SK Brisbane								
<b>Week 10</b> 26 – 30 Mar	Drones, Data & 3D Miles Student & Teacher PD	Water4All Alexandra Hills	Millmerran Power Station Teacher Tour						Good Friday	
<b>School Holidays</b> 2 – 13 Apr	Easter Monday	BMA MINT Camp								

**Term 2**  
**Tuesday 16 April – Friday 29 June**

	Monday		Tuesday			Wednesday			Thursday		Friday
<b>Week 1</b> 16–20 Apr	Teacher PD student free										
<b>Week 2</b> 23-27 Apr						ANZAC Day					
<b>Week 3</b> 30 - 4 May			Beakers.Bots.Build Taroom								
<b>Week 4</b> 7-11 May	Labour Day					S4SK Mackay	T4SK Mt Isa	S4SK Mt Isa	S4SK Bowen	T4SK & S4SK Kirwan SHS	T4SK & S4SK Townsville
<b>Week 5</b> 14-18 May											
<b>Week 6</b> 21-25 May	T4SK Gladstone		S4SK Rockhampton	T4SK Rockhampton	Beakers.Bots.Build Moranbah	C2C Career Talks Toolooa SHS			Beakers.Bots.Build Alexandra Hills		
<b>Week 7</b> 28 May-1 Jun			Brighter Futures Moranbah Student sessions	Brighter Futures Moranbah Teacher PD	Oresome Resources Ed Qld webinar	Centre of Excellence Tour Peabody Remote Operating centre	C2C Career Talks Wavell Heights		Young Professional STEM Stepping		
<b>Week 8</b> 4-8 Jun									T4SK Mackay		T4SK Bowen
<b>Week 9</b> 11-15 Jun	STEM 4 SK RGGGS	Digital Tech PD RGGGS				Brighter Futures Clermont Teacher PD			Brighter Futures Clermont Student Workshop	Drones, Data, 3D Capella Teacher PD	Drones, Data, 3D Capella Student Workshop
<b>Week 10</b> 18-22 Jun									S4SK Nanango	T4SK Nanango	
<b>Week 11</b> 25-29 Jun	Physics in Flight Clermont	Physics in Flight Capella	Physics in Flight Good Shepherd	Physics in Flight Spinifex	Physics in Flight Chanel College	Beakers.Bots.Build Oakey		Physics in Flight Cloncurry	Robotics Futures Secondary Sessions	Robotics Futures Secondary Sessions	
<b>School Holidays</b> 2 – 13 July	Glencore MINT Camp Mt Isa 1 – 6 July							QUT Indigenous Camp 2 – 6 July			
	Glencore MINE Challenge Mt Isa 1 – 6 July					Brighter Futures Camp 8 – 13 July					

**Term 3**

Monday 16 July – Friday 21 September

	Monday	Tuesday	Wednesday	Thursday	Friday		
<b>Week 1</b> 16 - 20 Jul							
<b>Week 2</b> 23-27 Jul			Robotics Futures Primary School session Gladstone	Robotics Futures Primary School session Gladstone			
<b>Week 3</b> 30 Jul- 3 Aug			STEM 4 SchoolKids & Toolkit 4 SchoolKids Millmerran	Oakey STEM 4 SchoolKids			
<b>Week 4</b> 6 – 10 Aug				STEM 4 SchoolKids Emerald	ECP Day Moranbah	CQ Junior Robotics Competition - Rockhampton	
<b>Week 5</b> 13-17 Aug	<b>SCIENCE WEEK</b>						
			AngloAmerican Mine Site Visit for Moranbah SHS	Rugby Run Solar Farm Tour Moranbah	QMEA & Alexandra Hills Redlands STEM Competition		
<b>Week 6</b> 20-24 Aug		Biloela STEM 4 SchoolKids & Toolkit 4 SchoolKids	Wadja Wadja Toolkit 4 SchoolKids	Energy for Future Earth Gladstone	S4SK T4SK M'mount	C2C Moranbah	Water 4 All Millmerran
<b>Week 7</b> 27-31 Aug		S4SK/T4SK Wandoan	Energy for Future Earth Brisbane QUT		Energy for Future Earth Blackwater	Toolkit 4 Schoolkids Brisbane	QRC Brain Break
<b>Week 8</b> 3 - 7 Sep		Capella/Clermont S4SK/T4SK Glencore Coal					
<b>Week 9</b> 10 – 14 Sep							
<b>Week 10</b> 17- 21 Sept	BMA MINE Challenge	BMA MINE Challenge	BMA MINE Challenge	BMA MINE Challenge	BMA MINE Challenge		
	Anglo American Camp	Anglo American Camp	Anglo American Camp	Anglo American Camp	Anglo American Camp		
	Anglo American Camp	Beakers.Bots.Build Townsville	Beakers.Bots.Build Moura	Anglo American Camp	Anglo American Camp		
<b>School Holidays</b>	24 - 28 Sept						
	1 – 5 Oct Queen's Birthday	GLNG Intro to Safety, Industry and Academic Writing	GLNG Intro to Safety, Industry and Academic Writing				

**Term 4**

Tuesday 8 October – Friday 14 December

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Week 1</b> 8-12 Oct				Robotics Futures Teacher PD Mining Innovators Gladstone	Robotics Futures Teacher PD Mining Innovators Gladstone
<b>Week 2</b> 15-19 Oct				Beakers.Bots.Build Sommerville House	Beakers.Bots.Build Nanango
<b>Week 3</b> 22-26 Oct	Teacher PD Gladstone & Miles			Engineering Teacher PD Churchie	
<b>Week 4</b> 29-2 Nov			My Digital World Dalby	Beakers.Bots.Build Pittsworth	Beakers.Bots.Build Glenala
<b>Week 5</b> 5 – 9 Nov			Beakers.Bots.Build Coorparoo Secondary College	Beakers.Bots.Build Gladstone	Peabody Moorvale Mine site visit Moranbah SHS
<b>Week 6</b> 12-16 Nov		Evolution Site Tour Theodore SHS		Last day year 12	
<b>Week 7</b> 19-23 Nov					
<b>Week 8</b> 26-30 Nov	Mining for Code Gladstone	Mining for Code Gladstone			Last school day year 10 11
<b>Week 9</b> 3-7 Dec			QMEA Ambassador Camp		QMEA Breakfast
			Centre of Excellence Teacher PD	Industry and Innovation Tour	
<b>Week 10</b> 10 – 14 Dec					

## Description of events

### STEM Punks

A series of exciting and innovative student workshops and teacher professional development sessions with an overall focus on creativity, innovation and entrepreneurship. Sessions focus on robotics, drones, 3D printing and advanced coding and have a resources/agricultural context applied demonstrating the use of these digital technologies in industry. All sessions have strong links to the Digital Technologies curriculum and general ICT capabilities with additional links to science and Industrial Design and Technology curricula. Hands on activities for both students and teachers are an essential part of these workshops.

**For more information**, contact Tammy Grady [tammyg@qmea.org.au](mailto:tammyg@qmea.org.au)

### Classroom to Career

A series of talks delivered throughout the year by industry representatives either as face to face visits or as a webinar if resources are available. The theme / context of these sessions would be linked to the curriculum being delivered at the time and specific year levels would be the target audience. Small hands on activities or interactivity involving the students would also be part of the session.

#### Benefits for students

- Presentations are linked to the National Curriculum minimising disruption of class
- Students see and hear the real world application to their classroom learning.
- Students engage with industry professionals gaining a unique insight to the world of work.

### Physics in Flight

Representatives from QMEA partner companies will work with students to show off the unique and exciting ways Physics is fun. Using gravity and forces as its starting point, Physics in Flight is a paper plane competition which encourages students to design, test and build a paper plane that will stay in the air the longest. Industry representatives will support students throughout the program and demonstrate ways physics is used in their career.

#### Benefits for students

- Physics in Flight can be run to suit school needs, either over a short session or a half or full day
- QMEA can support a regional joint school competitions
- Schools can work towards World Paper Plane competition with QMEA support

**For more information**, contact Tammy Grady [tammyg@qmea.org.au](mailto:tammyg@qmea.org.au)

### Water: A resource 4 all

A resource 4 all looks at how water is tested, managed & treated on a mine site. It contains a series of fact sheets, activities and practical problems that teachers can use with their year 7 science classes. The main practical activity will be coordinated with a visit to the school by an industry expert who can add vital real world knowledge and application to the activities and concepts the students have been studying. This set of activities and lesson ideas will help cover the following elements from the National Curriculum for Science – ACSSU113, ACSSU116, ACSHE121, ACSIS124, ACIS125, ACSIS126, ACSIS131, ACSIS133.

#### Benefits for students

- All activities & resources are linked to the National Curriculum and can be used be entire classes/cohorts minimising disruption to class.
- Students see and hear the real world application to their classroom learning.
- Students engage with industry professionals gaining a unique insight to the world of work.

**For more information**, contact Daniel Rea [danr@qmea.org.au](mailto:danr@qmea.org.au)

## Energy for future Earth

Energy for the Future endeavors to promote awareness around the various methods of electricity production available in today's society now and into the future. Year 8 students work with industry representatives as well as first year engineering students. Students are allocated a country and they must determine the best energy production mix for their country now and 50 years into the future. Students attend industry lead presentations which discuss different energy sources. The day ends with students awarding energy contracts. This sees students present their findings to an audience and take questions from the floor.

### **Benefits for students**

- Engage with professionals working in industry.
- Work with like minded peers.
- Gain an understanding of the true cost of energy production.
- Gain a global understanding of energy production.

**For more information**, contact Tammy Grady [tammyg@qmea.org.au](mailto:tammyg@qmea.org.au)

## QSMART PD

QSMART PD teaches students about QSMART. QSMART enables students following a trade pathway to participate in key elements of both Maths and Science subjects with minimal disruption to school/student timetables. There are two courses within QSMART, and both courses contribute towards the Queensland Certificate of Education (QCE).

**For more information**, contact Kym Frost [kymf@qmea.org.au](mailto:kymf@qmea.org.au)

## Beakers, Bots & Build

The program combines a number of challenge based activities based around the discipline of engineering. The practical tasks are designed for Year 9 and 10 students to work in teams and call on students to problem solve, plan, diagnose, analyse and construct. Each task is designed to encourage students to pursue further studies in maths and science in preparation for a university pathway in the field of engineering. Challenges are based around chemical processing, geology and environmental practices. All challenges have been designed in consultation with experts working in the field of engineering.

### **Benefits for students**

- Enhance problem solving, diagnostic and analysing skills.
- Students work with industry professional gaining a real insight to the world of engineering.
- Student work with real work related problems.

**For more information**, contact Tammy Grady [tammyg@qmea.org.au](mailto:tammyg@qmea.org.au)

## Make it now in Trade Camps/Challenges

Students are selected via an application process through their school. These students will attend the five day program and complete some trade based challenges, they will also have an opportunity to work side by side with some tradespersons or Apprentices to complete their project. Students will participate in a range of activities including orientation, safety induction,, fabrication, mechanical and electrical training tasks, and possible industry tours to mine sites and workshops.

### **Benefits for students**

- A working understanding for careers within the minerals and energy industries
- Experience a simulated work environment
- Better able to make informed decisions on their future career path and their school subject choice
- Support students to work towards completing Certificate I or II in RIO

**For more information**, contact Kym Frost [kymf@qmea.org.au](mailto:kymf@qmea.org.au)

### **Make it now in Engineering Challenges**

Students are selected via an application process through their school. MINE Challenges target those students considering a professional pathway into engineering or geology. Students have the opportunity to engage with industry mentors to solve genuine problems encountered on site and will be held in Mount Isa and Moranbah. Successful applicants will attend the five day program and participate in a range of activities including orientation, safety induction, site tours, career talks alongside working on the project and presenting their findings to management at the end of the week.

#### **Benefits for students**

- A working understanding for careers within the minerals and energy industries
- Experience a real life work environment and work on a real project
- Better able to make informed decisions on their future career path and their school subject choice
- Learn valuable insights into skills and knowledge required to succeed beyond school.

**For more information**, contact Daniel Rea [danr@qmea.org.au](mailto:danr@qmea.org.au)

### **QMEA Ambassador Program**

Students selected as QMEA Student Ambassadors will participate in a number of activities across a twelve month period that will increase their understanding of the resources sector, provide opportunities for networking with other students and industry representatives and develop leadership skills.

Students will be required to attend a 4-day QMEA Student Ambassador Program in Brisbane in December. During the year, they will also be invited to participate in a number of QMEA activities, and where appropriate may be asked to promote the QMEA and the benefits of working in the resources sector to industry, students and the community.

**For more information**, contact Daniel Rea [danr@qmea.org.au](mailto:danr@qmea.org.au)

### **Resources & Infrastructure Workplace Preparation Certificate II Program**

This entry level training is conducted in QMEA partner schools and Trade Training Centres and provides a direct career pathway to the minerals and energy sector for Years 10, 11 & 12.

The focus is the completion of entry level qualifications toward operator and trade pathways. The QMEA supports and offers a range of delivery models including full online delivery supported by short courses to undertake practical training. This training is offered in various locations and as such the delivery model will vary depending on partnerships established with local industry. The program includes an online theory component, a practical project, work placement component and if possible, a site tour or equivalent.

**For more information**, contact Kym Frost [kymf@qmea.org.au](mailto:kymf@qmea.org.au)

### **STEM for School Kids**

STEM for School Kids is a full day event offered to Year 10 students who are looking to pursue an academic pathway of study in Year 11 & 12. STEM for School Kids encourages the pursuit of excellence in Science or Science related subjects. Students compete in teams of three to complete a series of challenges based around the different disciplines of science and engineering related professions. Industry representatives are invited to act as mentors for the students while they complete the design and experimental stages of the program.

#### **Benefits for students**

- Enhance problem solving and decision making skills.
- Students work with industry professionals gaining a real insight to the resources sector.
- Students learn to work as a team.

**For more information**, contact Daniel Rea [danr@qmea.org.au](mailto:danr@qmea.org.au)

### **Toolkit for School Kids/Girls**

Students are selected via an application process through their school. These students will attend a one day a program and will be invited to apply to attend Trade based camps that will build on the Toolkit experience. The Toolkit program will have them participating in a range of activities including orientation for the workshop, opportunities to hear from tradesmen and other industry experts about their roles in the minerals and energy industry, and try some hands on trade activities. There is also the possibility of students attending an industry tour to a mine site or training facility.

#### **Benefits for students**

- A working understanding for careers within the minerals and energy industries and able to make informed decisions on their future career path.
- Gain knowledge from Industry Experts on different types of career opportunities.
- Assist in the transition from school to work and/or further education.
- Encourage students to work towards completing qualifications such as Certificate 2 RIWP

**For more information**, contact Kym Frost [kymf@qmea.org.au](mailto:kymf@qmea.org.au)

### **Gladstone STEM in Schools Program**

Sponsored directly by Conoco Phillips, the Gladstone STEM in Schools Program is designed to excite students and their teachers in the learning and teaching of STEM. Students will participate in experiential learning to broaden their minds about these disciplines while activities will build teacher capacity and capability in the teaching of STEM subjects. Students are targeted from year six through to year twelve with the full suite of activities being designed and informed from extensive consultation with schools and local industry. Activities will reflect real life learning and adopt a cross industry contextualised approach to incorporate the LNG industry and other STEM pathway fields.

Activities include:

- Sky High Thinkers
- Energy for Future Earth
- Beakers.Bots.Build
- STEM Stepping
- Toolkit 4 Schoolkids
- Ambassador Program

**For more information**, contact Tammy Grady [tammyg@qmea.org.au](mailto:tammyg@qmea.org.au)

### **QMEA & QGC Robotics Futures Program**

The Robotic Futures program aims to excite primarily teachers and their students in the learning and teaching of STEM, and uses automation and robotics to drive interest and acquisition of skills. Teachers' ability to teach STEM subjects will be enhanced through exciting and engaging experiences linked to the national Digital Technologies Curriculum, as will their general capabilities in Information Communication Technologies (ICT). Students in tandem with their teachers will participate in direct experiential learning to broaden their minds about the advances in these technologies and need for complementary skills.

Activities include:

- Mining Innovators – Robotics Teacher Professional Development sessions
- Digital Capital Champions
- Dro.Bo.Bots – primary
- Resourceful Robots – secondary

**For more information**, contact Tammy Grady [tammyg@qmea.org.au](mailto:tammyg@qmea.org.au)