



**AMS**  
AUSTRALIAN  
MATHEMATICAL  
SCIENCES  
INSTITUTE

**bhp**billiton  
Foundation

CHOOSEMATHS is a national project delivered by the Australian Mathematical Sciences Institute (AMSI) with the support of the BHP Billiton Foundation



**AMS**  
PRESENTS

# CHOOSEMATHS

AT  
**SINGLETON**







The Australian Mathematical Sciences Institute (AMSI) is a national not-for-profit, collaborative organisation based at the University of Melbourne. The central voice for Australia's mathematical sciences, AMSI plays an active role in the development of national research policy and frameworks to help shape Australian innovation for the future. We continue to drive a policy and advocacy agenda to achieve critical reform at all key stages of the mathematics pipeline from school-based and higher education, research training and funding to industry collaboration and innovation.

Our membership includes Australian universities, professional societies and government agencies with a shared objective to integrate research, education and industry involvement. A leading provider of services, activities and strategic initiatives we are working to radically improve capacity and facility of the discipline within the Australian community through:

- The support of high quality mathematics education for all young Australians.
- Improving the supply of mathematically well-prepared students entering tertiary education by direct involvement with schools.
- The support of mathematical sciences research and its applications including cross-disciplinary areas and public and private sectors and industry.
- The enhancement of the undergraduate and postgraduate experience of students in the mathematical sciences and related disciplines.



The BHP Billiton Foundation's ambition is to make a meaningful contribution to some of the unprecedented sustainability challenges facing our generation. In a rapidly changing and complex world, Australia's future success will rely on a highly educated and diverse workforce founded on a strong pipeline of science and technology skills. We need young people who are innovative, resilient, problem solvers and critical thinkers.

Science, technology, engineering and mathematics (STEM) education will be critical to building the skills that will secure the prosperity of future generations. Providing access to quality education and training will unlock opportunities for individuals, enable communities to prosper, and businesses and economies to compete.

In Australia, research indicates that girls are under-represented in STEM. To support a national effort to address this gap, BHP Billiton Foundation and the Australian Mathematical Sciences Institute (AMSI) have formed a partnership to design and deliver the Choose Maths program. This AUD\$22.2M investment aims to promote greater interest and academic achievement of girls in mathematics, leading to an increased participation in STEM subjects and contributing to a more sustainable and competitive economy.

## PROGRAMME OF EVENTS 2 / 6 / 16

9:30 - 9:40 INTRODUCTION

**MARCUS GARRETT,**  
*Schools Outreach Officer, Upper Hunter,  
Australian Mathematical Sciences Institute*

9:40 - 10:00 SPEAKER 1

**MS JACQUELINE STAR**  
*Graduate Mining Engineer  
BHP Billiton Mount Arthur Coal*

10:00 – 10:15 ICEBREAKER / WARMUP ACTIVITY

10:15 - 10:45 MATHSHOP SESSION A

10:45 - 11:15 MATHSHOP SESSION B

11:15 - 11:30 MORNING TEA

11:30 - 11:50 SPEAKER 2

**DR CATHERINE CHICKEN**  
*Veterinary Surgeon  
Soone Equine*

11:50 - 12:20 MATHSHOP SESSION C

12:20 - 12:50 MATHSHOP SESSION D

12:50 - 1:20 LUNCH

1:20 - 1:40 SPEAKER 3:

**DR MALCOLM ROBERTS**  
*Lecturer School of Mathematical & Physical Sciences (Mathematics)  
University of Newcastle*

1:40 - 2:10 MATHSHOP SESSION E

2:10 - 2:40 CLOSE & THANKS

RETURN TO SCHOOL FOR BUSES

CHOOSEMATHS DAY

SINGLETON HIGH SCHOOL

# CHOOSEMATHS

## NOTES

The Australian Mathematical Sciences Institute (AMSI) and the BHP Billiton Foundation are empowering Australian students to pursue mathematics through their five-year national program, **CHOOSEMATHS**. The program aims to turn around public perception of mathematics and will contribute to the health of the mathematics pipeline in Australia from school through university and out to industry and the workplace.

**CHOOSEMATHS** will work with students, parents and teachers over five years to turn around community attitude to participation in mathematics, especially for girls and young women.

### INSPIRING WOMEN IN MATHEMATICS NETWORK

A role-model network will be established to inspire school girls and young women to seek the opportunities mathematics offers

### WOMEN IN MATHEMATICS CAREER AWARENESS CAMPAIGN

A nation-wide awareness campaign to educate and excite the public with the knowledge of the importance of mathematics and an understanding that mathematics enhances career options and is a critical choice pathway to STEM

### MATHEMATICS-READY TEACHER PROFESSIONAL DEVELOPMENT

AMSI Specialists will work in 120 schools in 5 regions across Australia to enhance teacher knowledge and confidence in mathematics

### ANNUAL BHP BILLITON AWARDS FOR EXCELLENCE IN THE TEACHING AND LEARNING OF MATHEMATICS

**CHOOSEMATHS** will reward students, teachers and schools who are highly successful in motivating, inspiring and preparing students, particularly female students, through gender-sensitive teaching of mathematics

CHOOSEMATHS DAY

SINGLETON HIGH SCHOOL





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**DR MALCOLM ROBERTS**

*Lecturer School of Mathematical & Physical Sciences (Mathematics)*  
University of Newcastle



**MARCUS GARRETT**,  
*Schools Outreach Officer, Upper Hunter,*  
Australian Mathematical Sciences Institute

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Marcus Garrett is a Schools Outreach Project Officer. This role involves working with the Schools Outreach Team in the support of teachers in teaching mathematics, the development of Mathematics materials for use in schools and the collection and dissemination of information and advice on careers in Mathematics and Mathematics in careers. Marcus has about 23 years' experience in Education, including both primary and secondary (Economics, Business, Vocational and Financial Studies), curriculum consulting, teacher training and employment, education and training policy roles.

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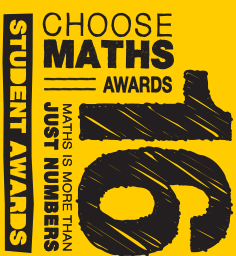
**MS JACQUELINE STAR**  
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**CHOOSEMATHS DAY**



The **CHOOSEMATHS** Teacher Awards acknowledge highly motivated maths teachers who have inspired students and enhanced their mathematical learning experience.  
**NOMINATE A TEACHER WHO HAS TAKEN MATHS BEYOND NUMBERS**

# WIN



# \$2000\*

\*CASH PRIZE WILL BE SHARED AMONGST WINNING TEAM PARTICIPANTS

STEP BEYOND THE CLASSROOM & BRING  
**MATHEMATICS TO LIFE ON FILM!**

AS A TEAM CREATE AND SUBMIT A **3 – 5 MINUTE VIDEO** ON THIS YEAR'S THEME

# MATHS IS MORE THAN JUST NUMBERS

TO WIN CASH PRIZES

## CHOOSEMATHSAWARDS.ORG.AU

**SENIOR AWARDS**    YEARS 9 – 11  
**JUNIOR AWARDS**    YEARS 5 – 8



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**DR CATHERINE CHICKEN**  
*Veterinary Surgeon*  
Scone Equine