

## WHAT WILL STUDENTS STUDY IN THE STEM ACADEMY STUDY?

- Students will study an enhanced and integrated STEM curriculum, based on problem solving and real-world applications
- The curriculum develops, engages and challenges all students to maximise their individual talents and abilities. It provides opportunities for personal challenge, enjoyment and satisfaction
- STEM will include Engineering fundamentals, Aerodynamics, Renewable Energy, Motion Electronics, Design and Scientific investigation
- STEM is an interdisciplinary and applied approach that is coupled with hands-on, problem-based learning.
- Students will develop skills in scientific investigation, reports and the design process.

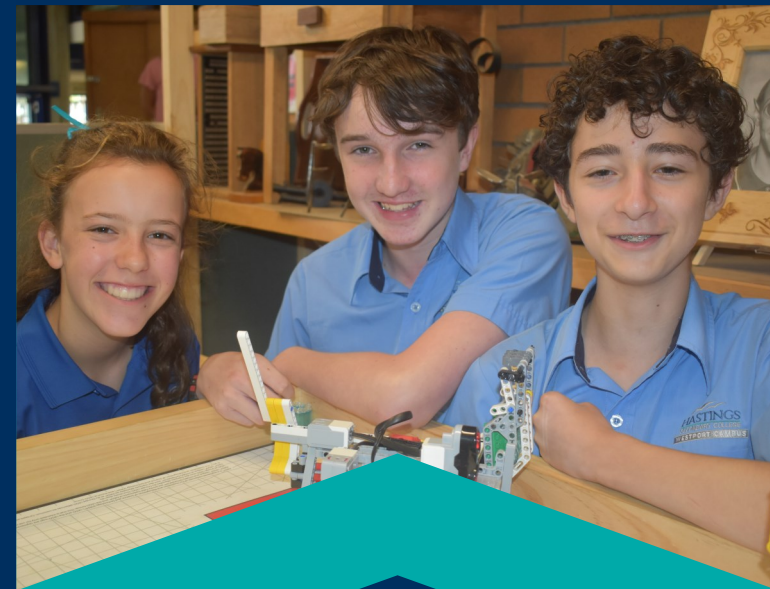
## FUTURE OPPORTUNITIES FOR STEM ACADEMY STUDENTS

- STEM skills are increasingly necessary to engage in our knowledge based economy. They ensure young adults are equipped with the necessary skills for the world of the future
- There is solid evidence that the fastest growing and highest wage jobs in the future will be in STEM fields. Estimations are 75% of the fastest growing occupations require STEM skills and knowledge
- Employment in STEM occupations is projected to grow at almost twice the pace of other occupations
- STEM related occupations: electrical engineers, mining engineers, agricultural and forestry scientists, chemists, and food and wine scientists, environmental scientists, ICT systems analysts, software and applications programmers, database and systems administrators

  
**HASTINGS**  
SECONDARY COLLEGE

EXCELLENCE - INNOVATION - OPPORTUNITY - SUCCESS

# STEM ACADEMY



  
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## HOW DO STUDENTS APPLY?

Application forms are available at either campus of Hastings Secondary College or on our website.

### CONTACT:

**Hastings Secondary College**

Port Macquarie Campus 6583 1844 (Andrew McManus)

Westport Campus 6583 6400 (Paul King)

[hastingssecondarycollege-h.schools.nsw.gov.au](http://hastingssecondarycollege-h.schools.nsw.gov.au)

INNOVATION  
REAL-WORLD CHALLENGE  
OPPORTUNITY

## WHAT IS THE STEM ACADEMY?

- STEM is an acronym for Science, Technology, Engineering and Mathematics education, increasingly referred to as STEAM which incorporates A for Arts and the creativity required
- STEM skills are behind the growing global reliance on technology and innovation, and provide opportunities to increase Australia's productivity
- The skills and knowledge in each discipline are essential for student success and they are deeply intertwined in the real world
- The STEM Academy provides students with the ability to investigate applications, theoretical and real world solutions to challenges in Science Engineering. Our innovative teaching integrates STEM skills into a cohesive learning model based on real-world challenges



## WHO WOULD APPLY?

- Our STEM Academy is designed for the problem solvers, innovators and entrepreneurs of the future.
- Year 6 to 9 students who are curious about the world around them, interested in the design process or enjoy critical thinking
- Students who have ability, interest or enthusiasm for Science, Technology, Engineering, Arts or Mathematics and their real world applications.
- Students who apply may have interest in one or more STEM fields and are interested in inquiry-based and real world problem-based learning
- Students who relish problem-solving and challenges



Hastings  
Heroes  
6508  
-  
Houston  
2017  
2018

## STEM INNOVATION : SCIENCE, TECHNOLOGY, ENGINEERING, MATHS

At Hastings Secondary College we pride ourselves on our integrated learning, staff expertise and facilities. We boast a successful academic and extra-curricular program.

## STEM ACADEMY OPPORTUNITIES:

- **ROBOTICS** - FIRST® Robotics and FIRST® Lego League
- Project development and competitions such as: Solar car or boat challenge - Sunsprint, and SolarBoats, Australian STEM video game challenge, Aeronautical Velocity Challenge, CSU STEM Science Fair, University of Wollongong Science Fair and STEM competitions
- Collaboration between industry and higher education in STEM research projects.

