



# STEAM Residential

STEAM Powered, Years 5 & 6  
Wednesday 11 - Saturday 14 April 2018

To be the best she can be



STUARTHOLME SCHOOL

## What is the STEAM Residential Program?

The STEAM Residential Program provides a three night residential for gifted girls who are currently in Years 5 and 6. The Residential aims to offer high ability students an intensive Program of learning in the STEAM areas: Science, Technology, Engineering, the Arts and Maths. Gifted girls will have an opportunity to learn alongside students with similar abilities and interests. Girls will have fun, learning with others who think like them. They will be encouraged to talk about issues that are important to learning, thriving and becoming the best they can be.

## How do I know if my daughter should attend the STEAM Residential?

Students accepted for the STEAM Residential must have high intellectual ability, scoring in the 90th percentile or above, as demonstrated through ability testing (i.e. IQ assessment or standardised ability group tests) and/or high achievement scores (i.e. standardised group tests; ICAS results). Where none of these is available, NAPLAN results, a recommendation from a teacher or home tutor will be sufficient indication of exceptional ability. Documentation is not required; however parents/carers should be aware that these workshops are designed to be academically rigorous and students are required to keep up with the rapid pace of instruction. Students must be able to work at least one to two years above their current grade level.

## What workshops will be offered for students at the STEAM Residential?

Workshops in each of the STEAM areas: Science, Technology, Engineering, the Arts and Maths, will be offered. Students will participate in one workshop for the duration of the Program. Students thrive when learning is matched with their interests. For this reason, it is very important for the student (rather than a parent) to indicate the workshops they would prefer to attend. When applying to attend the STEAM Residential, students should indicate all of the workshops, in order of preference. Outlines of the workshops offered are listed below. Every effort will be made to place students in one of their top three workshop preferences. Workshops offered may be adjusted to accommodate the numbers registered, the students preferences and teacher availability.

# Workshops

## SCIENCE: [Getting to the heart of it](#)

Do you ever cross your heart when making a promise that you really, really mean? Have you ever cupped your hands into the shape of a heart? Or seen <3 anywhere?

We see and hear about hearts everywhere. A long time ago, people even thought that their emotions came from their hearts, maybe because the heart beats faster when a person feels scared or excited. We know now that emotions actually come from the brain which tells the heart to speed up. So what's the heart up to, then? How does it keep busy? What does it look like? How do we keep it healthy? And what are the advances in medicine that help keep the heart working? Let's find out.

## TECHNOLOGY: [Serious Play](#)

This presentation will see you experience the spirit of tinkering and hands on learning through exposure to technology. You will be able to determine if this is the future for you. Have you heard about Dot Diva, DigiGirlz, animated gifs, Makey Makey, Scratch, greenscreens as these are a snippet overview of the projects that are on offer during the technology stream of the residential program.

You will learn how to design, construct and program. Wondering what bananas could have to do with electronics? Have you ever imagined yourself flying through space, exploring deep under the ocean or being an athlete at the Olympic games then come and along, learn and dream...

## ENGINEERING: [Marshmallow Tower](#)

Students will learn about forces in balance and apply this knowledge to design and build the tallest tower that can support the weight and shape of a Marshmallow, within a certain amount of time. Working in small teams, students will explore forces that enable towers to maintain their structure even when faced with severe weather conditions. Students will brainstorm a variety of possible solutions, construct their chosen design, test and evaluate its performance. Students will be given a budget and options for purchasing materials to build their chosen design. The winning design will be the one which is the lightest structure and has utilised materials in the most cost efficient manner. Extra points will be given for aesthetic appeal.

## ARTS: [Psychology of Perception](#)

Do you love learning about the human mind and human behaviour? We are all naturally curious about the world, especially the people in our lives, and are concerned about the choices and actions that we observe. If you have an inquisitive and creative mind then look no more, as Psychology is a logical topic of study for you. We will explore the Psychological basis of behaviour and its applications to everyday life.

This workshop will be an interactive and hands on workshop which investigates areas of Psychology and its relationship to Art; Perception; Intelligence, memory, brain structure and more. We will make a model of a brain and identify areas responsible for vision, language, music and creativity. Have you ever wondered why we are susceptible to illusions? How and why did the Dutch artist M. C. Escher create a paradoxical illusion of depth? In our workshop, we will try and create, for the more artistic of you, a physically impossible construction. We will also build a Penrose triangle with dice. Looking forward to seeing you at the workshop where we will stimulate our minds and be creative together!

## MATHS: [The Mathematics behind the Power of Machines](#)

Thousands of years ago, humans developed tools and simple machines to make life easier in getting big jobs done. Just think how those early Egyptians could possibly have built the pyramids without the technologies of today. They certainly needed to know their mathematics to be such good engineers! This is an active, hands-on workshop where you will learn the high level mathematical skills of extrapolation, tabulating, graphing, deriving formulae, finding patterns and approximating. You will also be honing your creative thinking skills and challenged to discover the mathematics behind the design of some everyday machines.



## Why is STEAM a residential Program?

Attending a residential program allows students with similar abilities and interests to have time together outside of the workshops; to really get to know each other. Some of the girls who attend the STEAM Residential program are from rural and regional areas. Participation in this program requires that all students stay at Stuartholme School for the duration of the Residential, even if students only live a short distance from the school.

Residing at Stuartholme School also allows students to participate in a carefully structured affective program. Students will learn about themselves; exploring and discovering what it takes to achieve personally, academically and professionally. Beyond the workshops, students will meet women working in STEAM-related areas and learn about careers in these fields.

On the first night, the girls will have an opportunity to get to know each other through fun-filled activities. On the second night, there will be visits from women working in STEAM-related careers. On the final evening, an activity will be held to celebrate their STEAM experiences. For this event, girls are encouraged to use their imagination to create and bring a costume relevant to the theme of the residential: 'STEAMing Ahead'

## Where will students stay?

Students will stay in the Boarding House at Stuartholme School. Entrance to Stuartholme is from 365 Birdwood Terrace, Toowong. There are no facilities for parents to stay at the School.

## Who are the people who will teach and support students attending the STEAM Residential?

Each workshop is led by a teacher with experience working with high ability students. Each workshop will be small in size, to foster and encourage open communication between students and teachers. These teachers are specialists in their subject area and each will be presenting a stimulating, challenging workshop, prepared specifically for gifted students who can work at least one to two years above their current year level.

Each student will also be part of a small residential care group facilitated by a Residential Leader. These women are excellent role models; providing support for the girls throughout their time at the Residential. They will be involved in organising the morning, afternoon and evening activities for the girls and will be staying in the boarding facilities at Stuartholme.

All staff will work with Gifted Education expert and STEAM Residential Manager, Michele Juratowitch, Director of Clearing Skies. Michele has extensive experience conducting workshops and residential programs for gifted students. Michele was the Manager of Residential Programs and conducted the APTS,



## Cost

The cost of participating in the STEAM Residential is \$450 (including GST). This includes tuition, materials required for the workshop, all meals during the residential, shared accommodation, afternoon and evening activities.

Families may consider applying for individual sponsorship through their local newspapers, service organisations or businesses. If parents require a letter from the Principal confirming student participation in the program to assist with applications for funding, please contact Michele Juratowitch via email: [michele@clearingskies.com.au](mailto:michele@clearingskies.com.au).

## How to apply

To Apply to attend the STEAM Residential in April please go to the Stuartholme School website at <https://stuartholme.com/event/steam-residential-programme-april-2018/>. The application, associated forms and payment must be undertaken by the student's parent/carer and be completed by Monday 19 March 2018.

Places at the STEAM Residential are limited. Apply soon to secure a place for your daughter. Parents are urged to complete applications as soon as possible as students miss out on a place at the residential each year. The application process will be closed when all places are filled. Students can be placed on a waiting list in case of cancellations.

Payment for the STEAM Residential forms part of the application process. To make payment via the website, click on 'Online Payments', select 'STEAM Residential' as the event type. When payment is completed a Receipt Number will be issued, which must be retained and entered into the registration form. Payment can be made online or cheques made out to Stuartholme School can be posted to STEAM Residential, Stuartholme School, Birdwood Terrace, Toowong QLD 4066. Applications will not be considered until the application process is completed, including payment, submission of medical and indemnity forms. Confirmation of enrolment will be made via email together with additional information about what students should bring to the residential.

If a student is unable to be placed in the STEAM Residential Programme, full payment will be refunded. Where a student is withdrawn from the STEAM Residential program before Monday 19 March 2018, a refund, less an administrative fee of \$50 will be arranged. If cancellation occurs after Monday 19th March 2018, an administrative fee of \$150 will be payable and deducted from the amount refunded only if it is possible to arrange a replacement for the student.

## Travel information

Please note that if your daughter is travelling independently to Brisbane, it is not possible to provide transport for her from or to the airport, bus or train station. It will be necessary for parents to make private arrangements.

## More information

Please read the STEAM Residential Frequently Asked Questions online at [www.stuartholme.com](http://www.stuartholme.com) first for further information. For further questions, please contact Michele Juratowitch via email [michele@clearingskies.com.au](mailto:michele@clearingskies.com.au) or telephone 0438 744 994.

