

# Tracking success

*Student stories from Big Picture Learning schools in NSW*



At Big Picture academies in NSW high schools, students structure their learning around personal interests, which they pursue both inside school and outside on internships with mentors in the community. Many are harnessing previously untapped potential and defying their own and others' expectations of their capacities.

A range of students from very different backgrounds and learning styles with unusual and diverse interests are attracted to the Big Picture design for learning because it affords them opportunities that are not available to them in mainstream schools.

They are excelling in all kinds of domains, including the scientific, medical, creative, physical, and sociological, and successfully transitioning to further training, university and employment.

Regular learning on internships and courses outside school stimulates ideas for future careers,

builds students' networks, and equips them with skills and qualifications while still at school. This results in young people who are a step ahead upon graduation, and confident in their choice of the next steps in life.

The advent of the International Big Picture Learning Credential (IBPLC), has allowed Big Picture graduates to more fully demonstrate their knowledge, skills, qualities and experiences acquired throughout their schooling and to allow non-ATAR entry to one or more of the 17 universities around Australia that accept the IBPLC.

Big Picture Learning network schools in NSW are noticing a trend for new enrolments of students from selective schools, home schooling and independent schools, as well as those with special needs, who are looking for an approach to learning that is about finding purpose and personal best.

## David Parsons

David Parsons is a Worimi and Biripai man who grew up in Newcastle. As a Big Picture student at Hunter Sports High School, he was able to structure his learning around his personal interests. At first, David thought he wanted to be a butcher, but after an accident in the surf, he injured his back and had to undergo surgery. There, he found his passion for neuroscience and surgery.

From then on, all his learning both inside and outside school was about medical procedures. He was mentored by a Surgical Assistant throughout Yr 11 and was able to observe open heart surgeries and talk with surgeons.

After gaining entry to university without an ATAR, on the strength of his Big Picture Graduation Portfolio, David studied Biomedicine at the University of Newcastle for two years. With help from the Wollotuka Institute at the University of Newcastle, which supports Indigenous students, David completed a year-long Open Foundations Course to increase his marks and was successfully able to transfer to Medicine.

**His passion for surgery remains strong and he is currently enjoying the hands-on nature of obstetrics, neurosurgery and anaesthetics.**



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**4th year of Medicine at the University of Newcastle**

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**Interests: neuroscience and surgery**

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**2017 Graduate from Hunter Sports High School**

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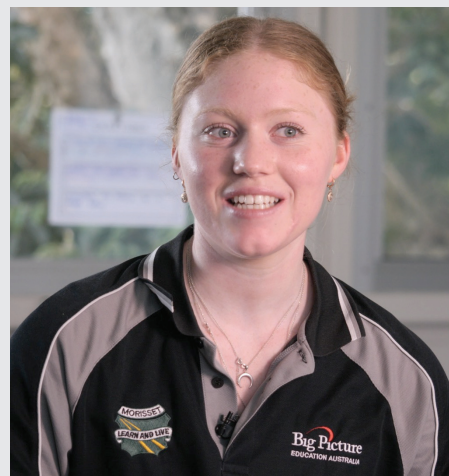
## Savannah White

Savannah explored a broad range of interests while at school. As a keen sportswoman, she thought that physiotherapy might be useful to explore, but after interning at a physiotherapy clinic, she realised that the massage component of treatment was not for her. This was valuable information to have at a young age.

She then turned her attention to environmental issues, including conservation, carbon sinks, the Murray Darling Basin, the Snowy Hydro Scheme and sustainable agriculture.

While at a workshop with NSW Parks and Wildlife in Year 11, she discovered the field of Bio-Acoustics. For her Senior Project, working with a scientific mentor, Savannah recorded the sounds of birds in three locations over time to measure and analyse seasonal fluctuations in biodiversity. She also trained a local Land Care group to use an app to record and upload results to the NSW BioNet. As part of her senior studies, she completed the Investigating Science HSC elective while in Year 11 and achieved a Band 6.

**She used her International Big Picture Learning Credential to gain entry to Environmental Science at the University of New England. She is the recipient of a futsal scholarship from her university and has represented Australia in Spain.**



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**2nd year of Environmental Science at the University of New England**

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**Interests: scientific investigations, biodiversity, futsal**

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**2022 Graduate of Hunter Sports/Morisset High School**

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## Lochie Westfall

As a Year 8 student in a mainstream high school, Lochie was bored by the slow pace of the mathematics course and wondered how he was going to remain engaged in schooling for four more years.

After joining Morisset High School's Big Picture Academy in Year 9, he was able to source and teach himself the maths that he required online. (Later, in Year 11, he attended maths classes at university.) He also started to pursue projects around Artificial Intelligence (AI) and one of his first exhibits was about decision trees.

During an internship at the University of Newcastle with the NUBots team who were teaching robots to play soccer and to compete in the Robot World Cup, Lochie focussed on algorithms associated with the decision-making and machine learning of the robots while the other members of the team were programming their movements.

**At the end of Year 11, Lochie gained non-ATAR entry to the University of Newcastle to study computer science and in his second year was offered a scholarship to study mathematics at the University of New South Wales. He is now completing a PhD in Mathematics.**



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***4th year of Mathematics at the University of New South Wales***

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***Interests: mathematics, AI***

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***2020 Graduate from Morisset High School***

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## Anais Murphy

Anais has had a lifelong passion for sea creatures and marine conservation. In her senior years, Anais became concerned about the degradation of the world's kelp forests, and undertook a Senior Project around: **How will climate change affect the Great Southern Reef's seaweed forest ecosystem?** This included a detailed study of the physiology of seaweed and the effects of climate change on oceans, the impact on the food chain of urchin barrens colonising reefs, and the displacement of kelp forests.

She enriched her research with extra-curricular learning opportunities, including sailing with the Young Endeavour Scheme and gaining her Advanced Open Water Scuba Diving Certificate.

Anais is now in her second year of her dream degree: Bachelor of Marine and Antarctic Science at the University of Tasmania, which is one of BPLA's partner universities.

**She has been shortlisted for the New Colombo Plan scholarship which, if successful, will give her the opportunity to continue her research in the Solomon Islands.**



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***3rd year Bachelor of Marine and Antarctic Science at the University of Tasmania***

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***Interests: environmental activism, marine conservation and research***

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***2021 Graduate of Five Islands Secondary College***

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## Jareef Ahmed

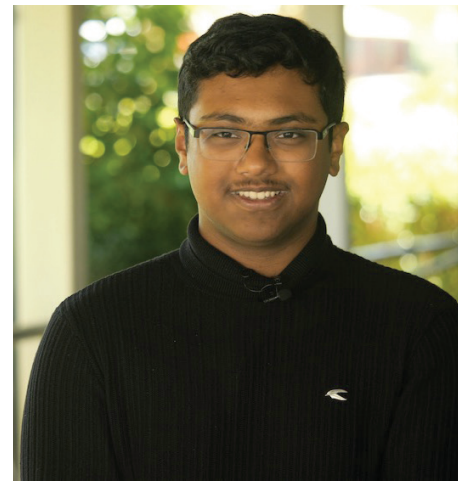
Midway through high school Jareef was unwell and unable to attend school. When the Big Picture Academy at Liverpool Boys High School opened, Jareef felt that attending and re-engaging with learning was a possibility for him.

Starting with an interest in army tanks in Year 9, which evolved into the history of warfare and military strategy, he completed a Senior Project in Year 12 about: **The deterioration of Sino-Australian relations during the Covid 19 period of 2020.**

At university he regularly received high distinctions and distinctions in his subjects.

He is a regular guest speaker at Big Picture Learning teacher-training courses and is an articulate, confident and highly reflective young man.

**Jareef has now completed his degree in International Security at the Australian National University and has accepted a graduate entry position with the Australian Public Service.**



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***Graduate of International Security Studies at the Australian National University***

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***Interests: defence policy, military history***

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***2020 Graduate of Liverpool Boys High School***

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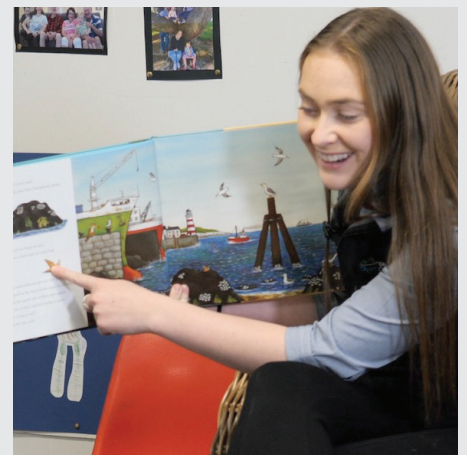
## Tyler Dent

Tyler discovered her passion for early childhood education while teaching young children how to dance. Throughout all of Year 12, she had an internship two days a week at a local childcare centre. She did a Senior Project around the way observations of play in the early years of a child's life are used to program activities that support their development.

Upon leaving school, Tyler gained entry to an Education degree at Charles Sturt University on the strength of her International Big Picture Learning Credential and Online Portfolio. However, she was unsure if she wanted to pursue tertiary study. Tyler was then offered a traineeship by the centre where she did her internship which she enthusiastically accepted.

After one year, Tyler had the experience and confidence to apply to university to pursue a teaching qualification with the full support of her employer.

**Tyler is now in her second year of Education at Charles Sturt University.**



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***Completed a traineeship at Courallie Park Child Development Centre***

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***2nd year of Early Childhood Education at Charles Sturt University***

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***Interests: dance, teaching***

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***2021 Graduate of Canobolas Rural Technology School, Orange***

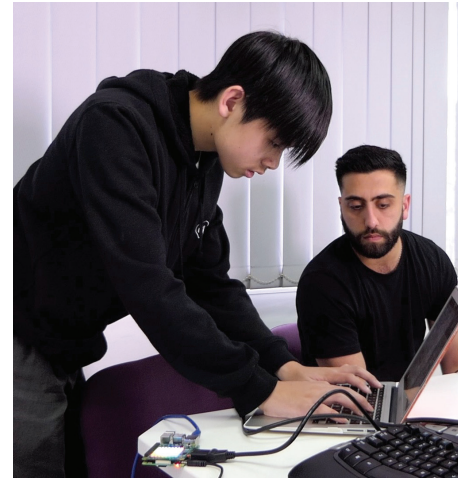
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## David Phan

At school, David's interests were around virtual reality and mathematics. He became interested in software engineering during a four-year internship at an engineering firm where he was involved in a project to develop augmented reality platforms to digitally monitor and maintain industrial machinery.

For his Senior Project, he created a machine learning algorithm to recognise whether a student could be suited either to Big Picture or to a mainstream style of learning. He drew upon information about students' personalities, learning behaviours and cognitive capabilities. He was mentored by both an engineer and a data scientist from UTS that David met through his internship.

**David pioneered the pathway for the International Big Picture Credential to be accepted by the University of Technology, Sydney, where he is completing his third year. He is currently studying the ethics of artificial intelligence while tutoring maths to students at his old high school.**



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*3rd year of Software Engineering at the University of Technology, Sydney*

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*Interests: mathematics, computer science*

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*2020 Graduate of Liverpool Boys High School*

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## Milan Hammond

Milan is a talented football player who has been playing since she was seven, and has played for the Young Matildas and for national Indigenous rounds since high school.

Her Senior Project for the International Big Picture Learning Credential was to design and develop several High Intensity Interval Training (HIIT) Programs that would improve the body's response to physical challenges. She tested the programs on herself and recorded baseline and final data using empirical methodology.

In her final year at school, Milan learnt that she had a syndrome where her abnormally enlarged calf muscles were exerting pressure on the arteries behind her knees and causing severe pain. After undergoing vascular surgery, she became fascinated with the medical field and decided to combine her football career with medical studies. She gained entry to a Biomedicine degree at the University of Newcastle.

**She is currently contracted to the Newcastle Jets and attending Young Matildas training camps. She has deferred her degree for the time being to pursue her football career and is employed part-time at an eye surgery company.**



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*Professional football player in the Women's League & deferred entry to Biomedicine at the University of Newcastle*

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*Interests: football, exercise science, medicine*

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*2021 Graduate of Hunter Sports High School*

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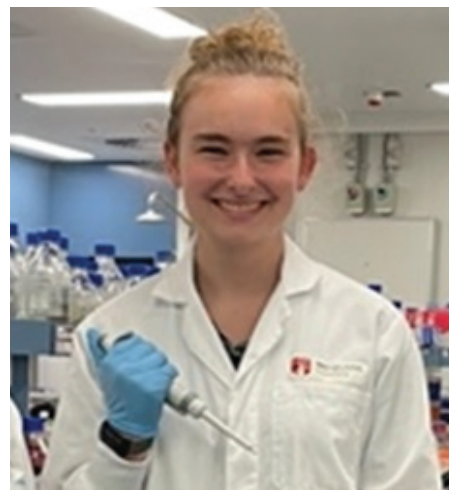
## Tynielle Gomez

As a Year 8 student in a Big Picture Academy, Tynielle was interested in learning more about the science of medicine and pharmaceuticals after a family member had experienced cancer.

Over the years, the passion for understanding how medical science can help people has remained strong. As a Year 10 student, she completed the HSC elective Investigating Science and achieved a Band 5.

Tynielle has had an ongoing internship at a compounding chemist during her younger years, and in Year 12, she enjoyed a life-changing internship at a Synthetic Biology Laboratory at Macquarie University. There, she worked alongside university students to PhD and post-doctoral fellows to run and analyse experiments associated with bioproducts, polymers, gels and yeasts. The exposure to a medical research environment has reaffirmed her commitment to pursuing a career in medical science.

**Tynielle now studying for a degree in Medical and Health Research at the University of Technology, Sydney.**



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***1st year of a degree in Medical and Health Related Sciences at the University of Technology, Sydney***

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***Interests: chemistry, pharmacology, medical research***

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***2023 Graduate of Morisset High School***

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## Dante Lloyd

During his three years at Guyra Central School's Big Picture Academy, Dante has had the opportunity to focus on his passions for graphic design, computer science and coding. He has spent a lot of time learning outside of school, including attending a first-year Computer Science class at the University of New England and studying for a Certificate III in Information and Digital Technologies with the Dubbo School of Distance Education. He also completed a Software Design and Development elective in Year 11 with Aurora College which is an online selective school for rural students.

His Senior Project involved building an online basketball simulation game from scratch called 'Basketball Manager', which uses strategic gameplay and statistical analysis to pit two team managers against each other. This has involved significant planning of the stages of development from conception to flow charts to prototypes. Dante accessed online resources to teach himself trigonometry, probability and statistics as and when he needed it.

**Dante is studying Computer Science and Software Engineering at the University of New England and is already well-known by the Computer Science Faculty.**



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***1st year of Computer Science at the University of New England***

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***Interests: computer science, software development, graphic design, basketball***

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***2023 Graduate of Guyra Central School***

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## Fion Tan

Fion attended a selective school in metropolitan Sydney before moving to Canobolas Rural Technology High School Big Picture Academy. Fion has since explored a range of interests including piano, classical composers, mental health and law. She discovered an interest in Family Law while studying the Legal Studies elective as part of her personal Learning Plan.

In her senior years, Fion examined the access to legal aid services for families experiencing domestic violence. This inspired her to create an infographic brochure about accessing Legal Aid and translate it into Mandarin to better support her own community.

Fion is keen to learn from experts in Family Law and has engaged in a range of outlearning experiences, including conducting informational interviews and Shadow Days at law firms.

**She is currently working towards achieving her dream of studying Law at Western Sydney University.**



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**1st year of Law at Western Sydney University**

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**Interests: family law, languages, piano**

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**2023 Graduate of Canobolas Rural Technology High School, Orange**

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## Monty Kellett-McHughes

Monty is a proud Ngemba man who was born and raised in Ngemba country (Brewarrina) and is now living in Wiradjuri country (Albury) and attending the Big Picture Academy at James Fallon High School. Monty was born with a rare genetic condition called Congenital Myasthenia Syndrome which affects the muscles in his body and causes extreme fatigue. The personalised and inclusive nature of the Big Picture Learning Design has meant that Monty is able to learn at his own pace with the support of his advisor.

Monty is passionate about Aboriginal cultures and languages. Using historical documents and the expertise of Aunties and Uncles, Monty is helping to compile a Ngemba language dictionary to preserve his culture. His Senior Project was around: **How can we embed Aboriginal pedagogy in the classroom by using culturally appropriate frameworks?** In his research, he noted similarities between the 8 Ways of Learning model and the Big Picture Learning Design and even mentored his advisory teachers.

He has completed the HSC electives Aboriginal Studies and Visual Arts in his senior years and undertaken an internship at the Murray Arts Museum Albury.

**Monty is studying Social Work online with La Trobe University.**



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**1st year of Social Work at La Trobe University**

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**Interests: Aboriginal culture and languages, visual arts**

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**2023 Senior Prefect at James Fallon High School, Albury**

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## Molly O'Sullivan

Molly's career aspiration is to become a film director, and she's been working tirelessly to make her dreams a reality.

The Big Picture Learning design's focus on learning outside school led Molly to an internship opportunity with Dr Stuart James McBratney, Lecturer in Media Production at the University of Newcastle. The internship consolidated Molly's love for the film industry. Molly's hard work and commitment have not gone unnoticed as she was invited back to work on more projects with Dr McBratney at the University of Newcastle.

As someone who is on the Autism spectrum, Molly was particularly interested in the representation of autism on screen. This was the focus of her Senior Thesis Project and recent graduation exhibition, which greatly impressed her mentor, advisors and family.

**Molly has achieved her dream to study for a Bachelor of Media and Communications at the University of Newcastle.**



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*1st year of Media and Communications at the University of Newcastle*

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*Interests: film making, directing, acting, autism advocacy*

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*2023 Graduate of Tomaree High School*

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## Toby

Toby is dyslexic and found the mainstream style of learning difficult to engage with. Since joining the Big Picture Academy at Guyra Central School, Toby has been able to learn through 'doing' and to pursue his passions. He has become more confident since being enabled to determine the scope and pace of what he learns.

Toby's lifelong passion is fishing. While he was on his internship at Deano's Springwater Trout Farm, which produces smoked fish products, he learnt all about food handling, water quality and how to harvest and smoke trout from his mentor. This led to a school-based apprenticeship in Aquaculture, which will equip Toby to work anywhere up and down the coast of Australia if he desires.

When he is not fishing or on his apprenticeship, he runs a small business handcrafting and selling lures. Toby's lures have all been quality tested and are designed to target a variety of fish.

**For the first time in his school journey, he has been able to experience a sense of joy and pride in the work that he has undertaken.**



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*Year 10, Guyra Central School*

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*Interests: fishing*

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*Apprenticeship in Aquaculture*

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## Darcy & Blake

During the COVID lockdown of 2021, Darcy and Blake came up with the idea of a digital radio station to stay connected to classmates and friends. Back at school, they set up a school radio station, STAR 107.8, that broadcasts every day between 11am – 4pm. Their station combines newsfeeds from the local ABC station, interviews, and pop music. Being technologically talented and resourceful, the boys built the studio with equipment that was scavenged and donated, and supplemented with the latest software.

Darcy and Blake have had an ongoing internship at the local ABC radio station in Wodonga, where they have been learning the arts of journalism, presenting, interviewing and operating the desk.

Darcy has become the go-to person for all the media production and technology needs at his high school. Blake enjoys managing the licensing, advertising and syndication agreements with other local stations.

**Darcy is currently interested in television production with a focus on lighting. He is deciding if his future will involve further study or if he will move directly into employment in the media technology and production industries. Blake would like to go into the NSW Police Service while maintaining a radio show on the side.**



*Year 10 students*

*James Fallon High School*

*Interests: radio broadcasting*

## Sophie

When Sophie read an article about an experiment in a Belgian town where every household was given three chickens to see if it would make a difference to reducing household food waste, she wanted to try it for herself.

Passionate about both sustainability and good design, she set out to build a chicken house from recycled materials and introduce three chickens to the family.

She went through many drafts of the design for the chicken house and did an internship with the draftspeople at a local housing construction company to learn about the conventions and software used in housing design. She was surprised to learn that designing homes was such a desk job and has learnt that she prefers more hands-on types of creativity.

She learnt to wield a variety of tools, to cut metal, and to calculate the area and perimeters of the enclosure so that she could accurately source sufficient materials.

**Importantly, once the chickens settled into their new home and began to consume food scraps and lay eggs, Sophie was able to prove that the sustainability hypothesis underpinning the experiment was true.**



*Year 10 student*

*James Fallon High School*

*Interests: art, design, sustainability, raising chickens*