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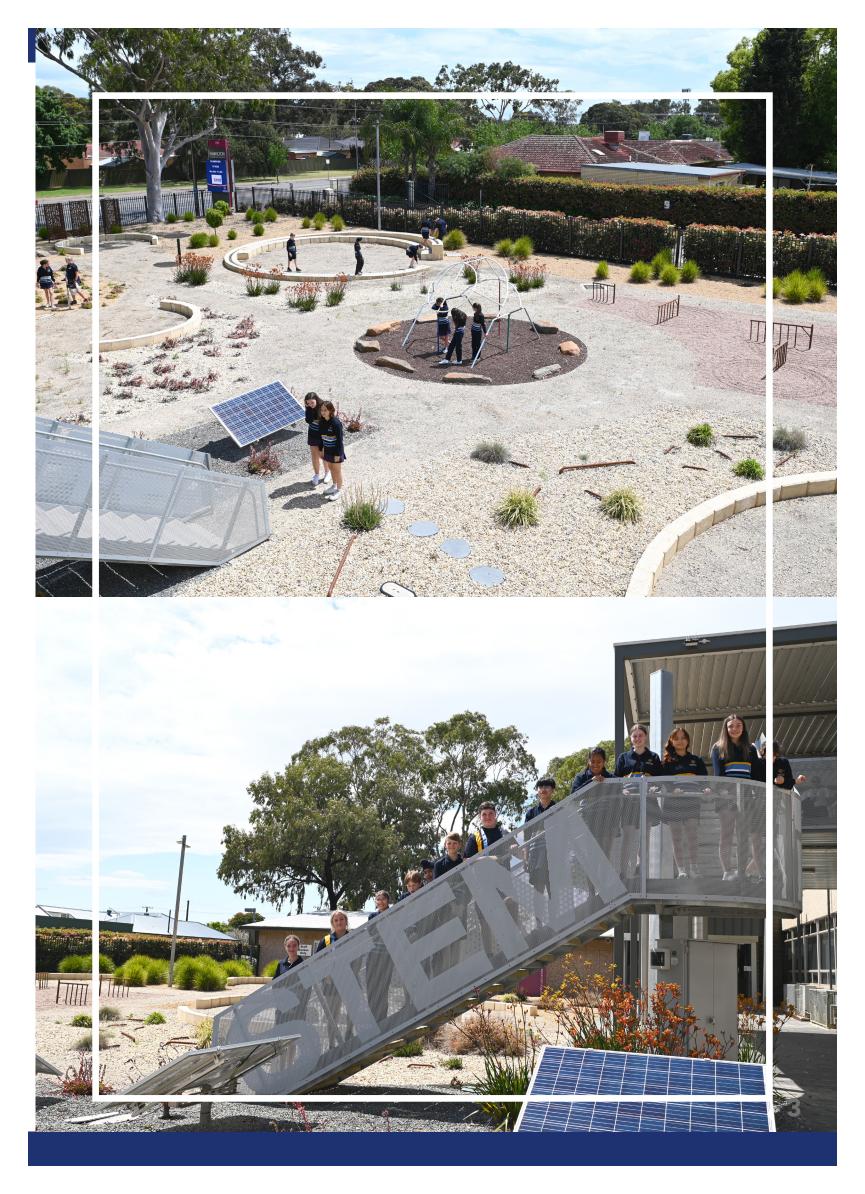
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# PRINCIPAL'S REPORT

We have much to celebrate this year. We were delighted to welcome our first year 7s into the Hamilton community. Their enthusiasm, curiosity and energy as they embraced their new learning environment heavily contributed to the vibrancy of the whole College. Our early observations of the year 7s in the yard was more active play, more laughter, and more interaction with peers, particularly around the seating in the central plaza area outside the canteen. They have embraced the class changes, a more flexible timetable, and interacting with an increased number of teachers. A stronger emphasis on pastoral care for our students supported students to gain a level of independence and responsibility that they have really enjoyed.

The completion of the construction of our Performing Arts Centre at the end of 2021 has allowed us to broaden students' curriculum options in Music, Drama, Media and Dance and provide them with multiple innovative learning opportunities to showcase their creativity, diverse talents and perform in front of their peers and families. The enthusiasm and the dedication of staff and students to raise the profile of the Performing Arts was impressive. The short Drama and Dance performances which students presented, offered them a platform to develop confidence, build team spirit and learn about their own personal growth, as they took on new challenges including writing and performing their own musical compositions.

This year we introduced the special interest Space Academy, to provide students who have a strong passion and aspirations for the space industry with specialised space related curriculum that further inspires them to investigate a diverse number of space careers and tertiary pathways through topics such as Robotics, Communication, Plant Biology, Space Medicine and Space Law.

Our planetarium has certainly added value to the Space Academy curriculum and beyond, building students' interest in astronomy which has led to our first astronomy club and using it as an innovative learning tool in junior science and senior physics. With the increase of enrolments and particularly with the emerging needs of the year 7s, we strengthened our wellbeing program to support students to build resilience and respectful relationships. This included the introduction of the Wellbeing Warrior Club assupport to improve mental health as well as celebrating: Are you Okay? Day, National Day of Action against Bullying and Violence, and Harmony Week to celebrate our cultural diversity at Hamilton.

We were delighted that excursions could go ahead this year and staff certainly took advantage of that to add value to the classroom curriculum. Students for example attended workshops at Tonsley Campus of Flinders University where they learned about linking sound and light waves and coding and decoding messages. Year 12s spent 3 days at Port Noarlunga developing and perfecting their kayaking skills as a part of their SACE assessment. Our year 8 camp went ahead at Nunyara Conference Centre where students had fun filled activities whilst building their communication and leadership skills.

Competitions were back on the curriculum agenda. We were very proud of the efforts of our Digital Defenders team which made the top 10 overall in the state cybersecurity competition and doubled their score from the first competition day. That was a fantastic effort given that our students were middle school students competing against senior students.

Many learning experiences have made Hamilton a vibrant College but the one that was most fun came from our PE faculty which introduced to us the Colour Run, where at each kilometre the runners were covered with different coloured powder. Almost the whole school took part. It was quite impressive.

Many positive initiatives have emerged in 2022. On this page I have highlighted only a few, so I invite you to take some time to look through the pages of our year book to see a community determined to strive forward with a sense of purpose and optimism.

I take this opportunity to also thank all who have contributed and generously supported our College, including our hard working Governing Council members, who diligently support me in the governance of our College.

Peta Kourbelis Principal





# MIDDLE SCHOOL

2022 has seen a vibrant and exciting year for the Middle School with many exciting events and achievements. The year began with a staggered start which allowed the new year 7 and 8 students to become accustomed to high school whilst years 9 and 10 remained at home for online learning. However by the middle of Term 1, we were excited to welcome all students back on site as school learning and activities slowly returned to normal. In Term 1, Sports Day was a particular highlight where students enjoyed some healthy competition in athletics and novelty events.

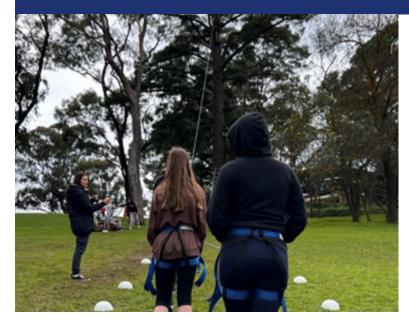
Although Term 1 saw the postponement of the year 7 and 8 camps, by Term 3 the year 8 camp was able to go ahead. Students headed out to the Nunyara Centre in Belair for an overnight camp where they undertook a range of team building and leadership challenges. It was a fun filled two days where students were able to make new friendships outside of the classroom.

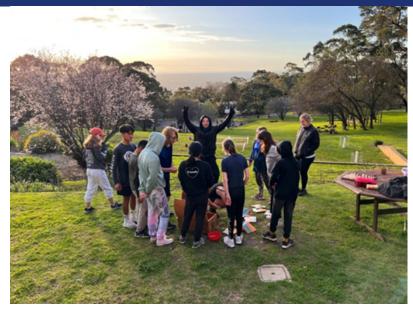
Year 7 to 10 students also became involved in many extracurricular activities including lunchtime clubs such as the Astronomy Club, Rocketry Simulation Club and the ever popular sports clubs including Middle School Futsal, Basketball and Badminton.

A highlight of Term 4 was the Colour Run which was run by the Year 11 Sports Studies Class. Students across all year levels dressed in their pristine white shirts which quickly became covered in a kaleidoscope of colour.

Finally the year ended on a high with the Hamilton Presentation Night. Throughout the year students' achievements were celebrated in termly assemblies however the Presentation evening was a particular highlight as it gave students and families the opportunity to celebrate their successes in and out of the classroom. Some of the key achievements were the celebration of Academic Achievement as well as the Special Awards including the ADF Long Tan Award's won by Chelsea and the ADF Future Innovator award won by Afnan.

Other special award also recognised the contribution of students to the Hamilton community including the David Martin Leadership Award sponsored by the Edwardstown Lions club which was won by Oz due to his impressive work in the Astronomy Club as well as the Robert Walters Award winners for their contri-butions to Space, Drama and Sport.



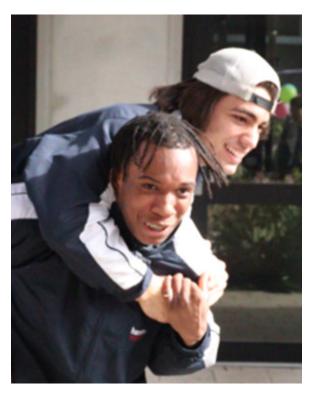






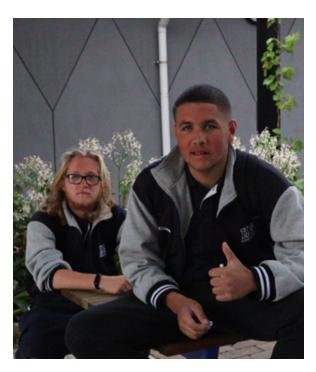






# SENIOR SCHOOL









What an eventful, challenging and rewarding year 2022 has been in the Senior School at Hamilton Secondary College. It has been my pleasure to help guide the Year 11 and 12 students through their final years as secondary school students this year. The students have all experienced the highs and lows of life as senior school students, with many memories made along the way.

The Senior School students hit the ground running in Term 1 but encountered challenges almost immediately. Many students and staff had an interrupted Term 1 with days missed due to illness.

This put some students on the back foot but they were able to rise above through hard work and persistence. Term 1 was filled with highlights including Sports Day, with the Year 12 Formal Committee keeping everyone well fed and hydrated at the Formal BBQ Fundraiser.

The end of Term 2 provided many important milestones for the Senior School students with the Year 12 students completing their Research Project and the Year 11 students receiving their first semester of SACE credits. Students turned their focus to their future pathways in Term 2 and 3 Pathways with presentations from University of South Australia, Adelaide University and Flinders University.

The Year 12 students also put together their SATAC University Applications with a focus on health and wellbeing, with presentations from the Sammy D Foundation, Debbie Ryan, SAPOL and Child Protection Curriculum sessions.

A couple of other highlights from Term 2 and Term 3 included the Year 12 Formal Donut Day Fundraiser, Year 12 Movie Night and the whole school Colour Run.

Term 4 brought the beginning of the end of their secondary schooling for the Year 12 students. They worked hard to finish off assignments and completed final tests. The biggest highlight for the Year 12's was their final week of classes in Week 2. They took on the staff in the annual Year 12's vs. Teachers Volleyball match but were ultimately unsuccessful.

The conclusion of their final week was the farewell assembly and BBQ breakfast. This was an emotional farewell that began with a breakfast cooked by the staff followed by the whole-school assembly.

The final farewell for the Year 12 students was the Formal and Graduation ceremony on Thursday November 25th. The Year 12's finally had a chance to let their hair down and celebrate the year that was. For the Year 11 students, Term 4 was all about wrapping up their Stage 1 studies and preparing for Year 12.

I have thoroughly enjoyed working with the Senior School students throughout 2022. Whilst many students have faced challenges, many were able to achieve success. I would like to wish the Class of 2022 all the best with their future studies and say a job well done to all of those involved with the Senior School this year.

# **HAMILTON UNIT**

In both Hamilton Unit classes students have been developing their Numeracy skills using the program Numicon to explore numbers and patterns. Every student has a tailored Numicon program that targets skill development in Numicon shape value, addition sums and patterning.

In Science, Chemistry students participated in hands on experiments and discovered how liquids react to each other and developed their procedural writing knowledge using kinaesthetic learning to create and test their own ability to format instruction for their peers.

Other areas of learning this year have been exploring countries within our Commonwealth as part of the Commonwealth Games, Mathematics graphing of the medal tally to interpret and analysis data and continuing to improve students reading and writing techniques through the use of VCOP (Vocabulary, Connecters, Openers and Punctuation) in different writing genres.

This term SC1 have enjoyed interacting with other classes in the unit for a weekly PE lesson. The students have participated in activities that have built upon skills such as hand eye coordination, agility and endurance and communication and collaboration.

The students in Special Class 2 have been involved in several sporting events this year, including a very successful SA Tennis Carnival, 5-a-side soccer and athletics at Bridgestone arena.

In science we looked at 'Space' and 'Gravity' and were shown various aspects of the Solar System in the 'Planetarium' by Ms Atkins. In HASS we followed the Commonwealth Games and studied a range of countries, including their culture and geography.































# INTERNATIONAL

As the Australian borders have opened in early 2022, it has been exciting to see International students return to our classrooms.

A small group of a dozen Year 12 International students have graduated and left the program in 2022. Most are seeking tertiary education offers in Australia, and some are very excited to go home to visit family for the first time in 3 years. We had a strong group of Year 11 students arrive in Term 1. Most had been studying in the Online Connect Program for up to 18 months during the pandemic, so it has been lovely to get to know them more personally, rather than just see faces on the laptop screen.

The year has gone by so quickly and now those online students are preparing for Year 12 in 2023, together with Hamilton Secondary College teachers.

2022 has seen the return of the Intensive Secondary English Course or ISEC classes. A good number of these new arrival students are now flowing on to make friends in mainstream classes. They have enrolled into all year levels from Year 7 to 11. Next year, in Term 1 of 2023, we will establish a second ISEC class and our International numbers will grow to approximately 100 students.

Hamilton Secondary College is fast becoming one of the larger Global Education schools, giving the local students some healthy competition and more amazing opportunities to enhance their cultural understanding of various cultures around the world.

This year we have hosted students from Vietnam, Thailand, China, Cambodia, Brazil, Columbia, France, India and next year we will broaden the group to students from Sri Lanka, Myanmar, Spain and Taiwan.

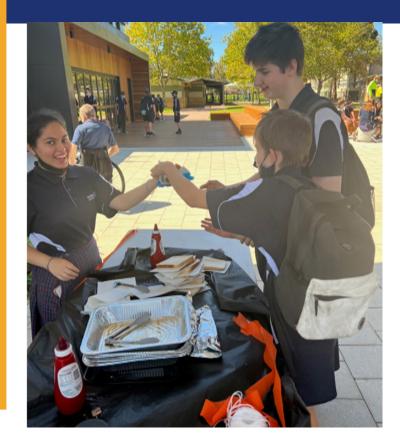
In November we welcomed our first two week Study Tour from Ushiku Senior High School in Japan. This was the first tour in a very long time and we also worked hard to continue our friendships with 2 other Japanese schools.

We held breakout meetings with Zoom sessions and getting to know you activities with our Year 7 and 8 Japanese classes. This enabled Hamilton students from the Japanese language classes to practise their Japanese language and learn about culture.

In 2023 we are anticipating 2 study tours from Indonesia and perhaps more tours from Japan. As the COVID restrictions hopefully ease further we can build on our global citizenship skills for a brighter future.



# WELLBEING



Throughout the 2022 school year our Wellbeing Team has collaborated to provide support to help students build resilience and manage their own personal issues and relationships.

Our morning breakfast club has been a hit as we fuel up for a day of learning. On a Wednesday during lunchtime we have many participants in the Wellbeing Warriors Club where we talk and learn about different self-care strategies for supporting our mental health.

We have engaged in mindfulness, yoga, breathing techniques, nature walks and more! Throughout the school year we recognised and celebrated various special days. Students at Hamilton are proud of their mother language and we celebrated exactly that on International Language Day! Students gathered to share how to say hello in their own languages. The responses were incredibly diverse and a great conversation starter into our cultural heritage.

We celebrated National Day of Action against Bullying and Violence. This day was an important opportunity for us to come together and demonstrate the 2022 theme, #KindnessCulture for bullying prevention for our Hamilton school community.

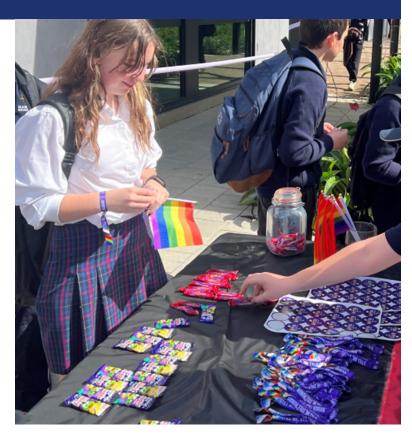
Our cultural diversity at Hamilton is a great strength and brings with it a whole host of traditions, religions, languages and of course, food! It helps us to do things in different ways, reduces discrimination and lets us accept difference

Harmony Week was all about celebrating the amazing cultures that make up our country and school. I think our favourite part was the sausage sizzle at lunchtime! On 'R U OK Day', we learned about the importance of knowing that every day is a good day to ask, 'R U Ok'? Starting a meaningful conversation to support people in our world through life's ups and downs is imperative.

Students also had the opportunity to attend a day at the Marion Cultural Centre of wellbeing workshops and self-care activities facilitated by Head Space's Youth Reference Groups and Ambassadors.

Students had the opportunity to make ongoing connections between community organisations so that they have access to better wrap around mental health services. Students also had the opportunity to attend an excursion to view the documentary 'Embrace Kids'. This documentary prompted students to explore relationships with body image, social media, gender, identity, representation and diversity.





English students across year 7 to 12 have shown great versatility and creativity in their English classes this year.

2022 saw the first year where Hamilton Secondary students in both year 7 and year 9 undertook the National Assessment Program – Literacy and Numeracy Tests (NAPLAN) in Reading, Writing, Spelling and Grammar, and Numeracy. In preparation for their stressful days, year 7s and 9s filled their bellies with a complimentary breakfast or recess.

Students impressed their teachers with their dedication and focus in this very stressful week and they were rewarded with some truly impressive results, in particular the winners of the Literacy and Numeracy prizes in Year 7 and 9: Trent and Oliver. Year 7 students also engaged in the Premier's Reading Challenge as well the Prime Minster's Spelling Bee where one year 7 student made it all the way to state finals.

Year 7 students have explored texts this year along the theme of 'Know Myself, Know My Stories'. They read and wrote their own Memoir and TED style Speeches and looked at the way a range of documentarians shared their experiences through Film. They then finished their year by watching and creating their own Spoken Word Poems.

Year 8 students refined their debating skills by developing persuasive essays and speeches which they presented to the class. They also explored cinematic and written literature including George Orwell's Animal Farm and Rosanne Hawkes' novel Shahana.

In Year 9 English classes, students created advertorials, which advertised their own product or Public Service Announcement and developed their understanding of Indigenous perspectives as they viewed The Rabbit Proof Fence where they created their own text based on the experiences of those affected by the Stolen Generation.

Year 9s also had great fun creating their own boardgames as a creative response to their study of William Shakespeare's Romeo and Juliet.



# **ENGLISH & EAL**

Year 10 students refined their English skills as they prepared for their future SACE studies. They explored intertextuality and Gothic elements found within the film Coraline and also considered perspectives of different cultures through history, by analysing Hip Hop Songs that explored discrimination and institutional racism.

A highlight was the food review task where year 10 students attended the school café where they enjoyed a lunch made by the Certificate II Kitchen Operations students. After this session, students applied review writing techniques to write an effective review using the correct language.

Senior School students in years 11 and 12 showed their mastery in their English, Essential English and English as an Additional Language (EAL) classes.

Year 11 students undertook cinematic studies of a range of modern films such as The Village and Tim Burton's short film Vincent and developed their writing skills through the development of their own original gothic horror stories and a highly opinionated review of Dominos pizza range based on a very popular taste testing session.

Year 12 students deepened their critical understandings as they explored gender bias found within different advertisement texts and created a blog post to inform their audience of what to look for. They also undertook studies of classic literature including F Scott Fitzgerald's The Great Gatsby.









# **JAPANESE**

This year, students in years 7 and 8 undertook a beginner's course in both Japanese language and culture.

They studied writing systems, personal statements, Japanese pop-culture, folklore and mythology. Some students were lucky enough to participate in virtual exchanges with Hachioji Academy and Takatori Kokusai High School in Japan.

Term 4 brought a study tour from Ushiku Senior School, and our Year 7 students acted as buddies and ambassadors for the duration of the trip. Students acted as tour guides around the school and also educated the visiting students on important aspects of Australian culture such as fairy bread and vegemite.



# PERFORMING ARTS

The Performing Arts faculty has had a wonderful year filled with the incredible talents of Hamilton's year 7 to 12 students. The start of the year was particularly exciting as students and staff were able to utilise the school's new 150 seat theatre which has hosted drama performances, dance rehearsals and Arts Showcases in semesters 1 and 2.

This year, the Performing Arts Club lunchtime sessions have focused on Dance, giving student members the opportunity to be physically active whilst increasing coordination, muscular strength and relieving stress. Students had fun whilst focusing on building the confidence to achieve a correct technique or movement and were supported to be creative whilst collaborating with other students across a variety of year levels. Students focused on learning specific contemporary dance techniques, which they performed in their routine at the end of year arts showcase.

### **MUSIC**

Year 7 to 12 music students have shown their creative talents throughout the year in their studies. Excitingly, the start of the year allowed staff and students to use the new music suite of classrooms as part of the new Performing Arts Centre which featured practice rooms and two ensemble rooms. Students were able to demonstrate their talents across many instruments including piano, percussion, voice, guitar and many more.

Students also learned about sound engineering as they used digital musical recording programs to record and engineer their own songs and compositions. As part of their learning about the music industry, students also trained in 'bump-in' and 'bump-out' processes as stage hands for musical performances.

This year also saw expanded SACE Stage 2 Music options at Hamilton, with the inclusion of the Music Explorations subject. The nature of this subject, which encourages students to choose and focus on their own individual musical strengths and interests, and opportunities for various collaborative work.

This resulted in students working collaboratively across year 11 and 12 to compose and record their own music. This was particularly on show in the Semester 2 Arts Showcase where year 11 and 12 students performed their own compositions to the audience's delight.











### **DRAMA**

Drama has continued to grow in the college in 2022 and this was shown through many performances by the year 7 to 11 Drama students in a range of inschool performances to other year groups as well as the showcase evenings in semesters 1 and 2.

In the Middle School drama classes year 7 and 8 students had the chance to complete a semester of Drama where they focused on understanding theatre terminology, theatre basics, and set and costume design. Students studied the history of Commedia dell'arte and physical comedy which culminated in a hilarious performance of scenes from the British Farce One Man, Two Guvnors.

Year 9 students explored the genre of Melodrama from which they devised and performed their own hilarious plays. They also developed their classical theatre skills through performances of scenes from well-known plays including: Clue, And Then There Were None, Alice in Wonderland, and Peter and the Starcatcher. The year 9 class then ended the year with a full class production of The Curse of Macbeth which they performed to year 7 and 8 classes as well as in the Arts Showcase in Term 4.

In year 10, drama students took a more serious tone to their studies as they learnt about the dramatic genre of realism, performing scenes from A Doll's House and The Three Sisters and a review of Chekhov's Uncle Vanya. The class also developed and performed whole class productions of Teen Bully and The Snow Queen which they performed at the show cases in semesters 1 and 2.

2022 was also a big year for our Year 11 students who undertook their Stage 1 Drama studies. The year 11 class impressed not only their peers but also visiting schools and parents in their productions of Blythe Spirit in Term 2 and scenes from Waiting for Godot and The Birthday Party in Term 4.









# HOME ECONOMICS









Middle school Home Economics focuses heavily on the fundamental safety and cooking skills required to be successful, lifelong cooks. Students in Years 7 and 8 learned the importance of hand hygiene in the kitchen and practiced basic measuring, mixing, grating, baking and frying skills. They followed up with a unit on the importance of healthy eating.

The students explored the Australian Guide to Healthy Eating and analysed the serving suggestions and the different food groups. In Term 4, Year 7 students have been participating in a gingerbread house unit, designing their own structures and creating a prototype to test before baking and building their own gingerbread house to take home!

In Year 9, students have continued building on their existing knowledge and skill base to become confident, competent and creative cooks. Students continued to learn about food safety by conducting audits and looking at case studies. Then, they put their figurative chefs hats on to practice professional knife skills before finishing the year with some Food Art.

Year 10s continued to further their skills by making many elements of their dishes such as pasta and ramen completely from scratch, using updated equipment in the kitchen.

The elective Year 10 class spent the majority of Term 3 working on the group task, collaboratively planning and preparing a 5 week menu of takeaway staff lunches to sell to staff. The food had to consider dietary requirements, student's skill set, time allocated, budgeting constraints and safety standards. This task was a big hit among many of the staff and the students demonstrated outstanding technical skills and professionalism throughout this task.

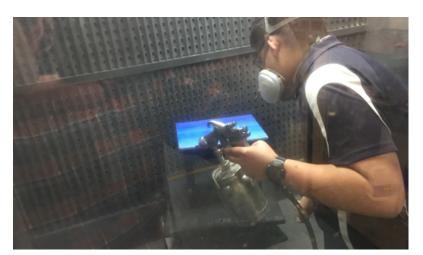
Stage 1 Food and Hospitality had students creating dishes that reflected healthy foods, catered for specific dietary requirements, current food trends, while using increasingly sophisticated technologies. With particular care taken into presentation skills throughout this year, these students have excelled in creating vibrant, trendy, creative and healthy meals.

Students also had the opportunity to attend an excursion to the Adelaide Central Markets to conduct interviews with people in the food industry, to assist with their investigation. The Stage 2 Food and Hospitality class worked on topics ranging from regional food, tapas and desserts, as well as, catering for staff at the school. Students used their knowledge and skills to present and serve food of industry standard.











# YR 9 CAD SEMESTER 2

Students modelled existing machine parts and undertook challenges to build skills to design and create solutions to a design brief. The major products designed were can crushers and scaled models of existing rockets.

Year 9 design and technology classes produced a small stool or an occasional table using solid timber and plywood and a contemporary joining system known as Domino. Many students experimented with different polishing methods and painting to finish their products.

The year 10 design and technology students constructed an occasional table using solid timber, pine veneer particle board, iron on edge strip and the Domino jointing system. Each student finished their table in different polishing or painting methods. The year 10's also engaged in the design process to design and create a solution to a challenge of their own.







# DESIGN & TECHNOLOGY

## **ROYAL SHOW SUCCESS**

In 2021 Hamilton registered the most entries into the Design and Technology competition at the Royal Adelaide Show. Unfortunately, although we were registered entrants and ready to deliver our students projects, the Show was cancelled.

This year Hamilton was by far the largest exhibitor in the Schools Design and Technology competition with students from Year 7 through to Year 12 submitting entries into a range of categories. Our students also collected the greatest number of awards across all categories in this year's competition.

Congratulations to all students who submitted entries in this year's competition



# VISUAL ARTS







This has been a busy year for Visual Arts and Photography across all year levels. The painted stobie poles were installed along Marion Road back in Term 1. These aim to give a brief visual history of the Marion area which included brickmaking, almond blossoms, vineyards and Hamilton Secondary's own Space School.

Year 8 students contributed to the ongoing Art Installation in the Art Room which involved students making Cardboard shanty houses and adding them to the installation. This installation is influenced by climate change and aims to draw attention to climate displacement which effects over 25 million people each year.

Year 9 students created a diverse range of Banksy inspired stencil artworks which involved students creating, cutting and spray painting their own stencil. This year also saw the Visual Arts faculty grow with the largest cohort of Stage 2 Visual Arts and Photography classes.









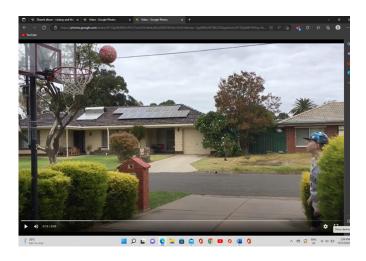
# HUMANITIES AND SOCIAL SCIENCES (HASS)

In 2022, Year 7 HASS Business & Economics curriculum gave students the opportunity to explore the features of successful businesses and consider how entrepreneurial behaviour contributes to business success.

This unit allows students to learn in a real-world context. They develop business plans, skills and tools that are necessary and commonly used by businesses and individuals to start, maintain and grow their businesses in the short and long term.

Students were inspired to embrace entrepreneurial behaviours by learning about self-made Youtuber millionaires. Students were then required to choose a topic and develop a Youtube video for a target audience. One student chose to create a video on different basketball techniques, another cooking, to name a few.

To meet the required standards, students conducted extensive research, developed a business plan storyboards and scripts. After this, it was time to create a video. Students spent many hours on this task, often working at home. When reflecting on their work, most agreed, that it would be quick and easy. Most were surprised at the many hours they spent on recording and editing and it was more time consuming than they initially thought.









# VET

# CERTIFICATE II IN KITCHEN OPERATION

This year has seen all Certificate II in Kitchen Operations students consciously work through the thirteen units offered to achieve competency and successfully graduate.

They demonstrated the use of the different cookery techniques while also focusing on employability skills, all the while developing effective problemsolving skills and the skills required to work effectively in a hospitality environment. They catered on site for different events which were well received by students, staff and visitors. Some students have already been offered employment opportunities.

The executive chef and owner of one of our major supporters from award winning Adelaide Pavilion sent through a photo of 3 different year level graduates currently work with him. With this message "Three educational generations in one kitchen. Congratulations"

They have also employed our 2020 Barista students, Pouya Maleki, Nawshad Shah, still currently at the Adelaide Pavilion and also past students Sebastian Ashton and Matthew Kirley.

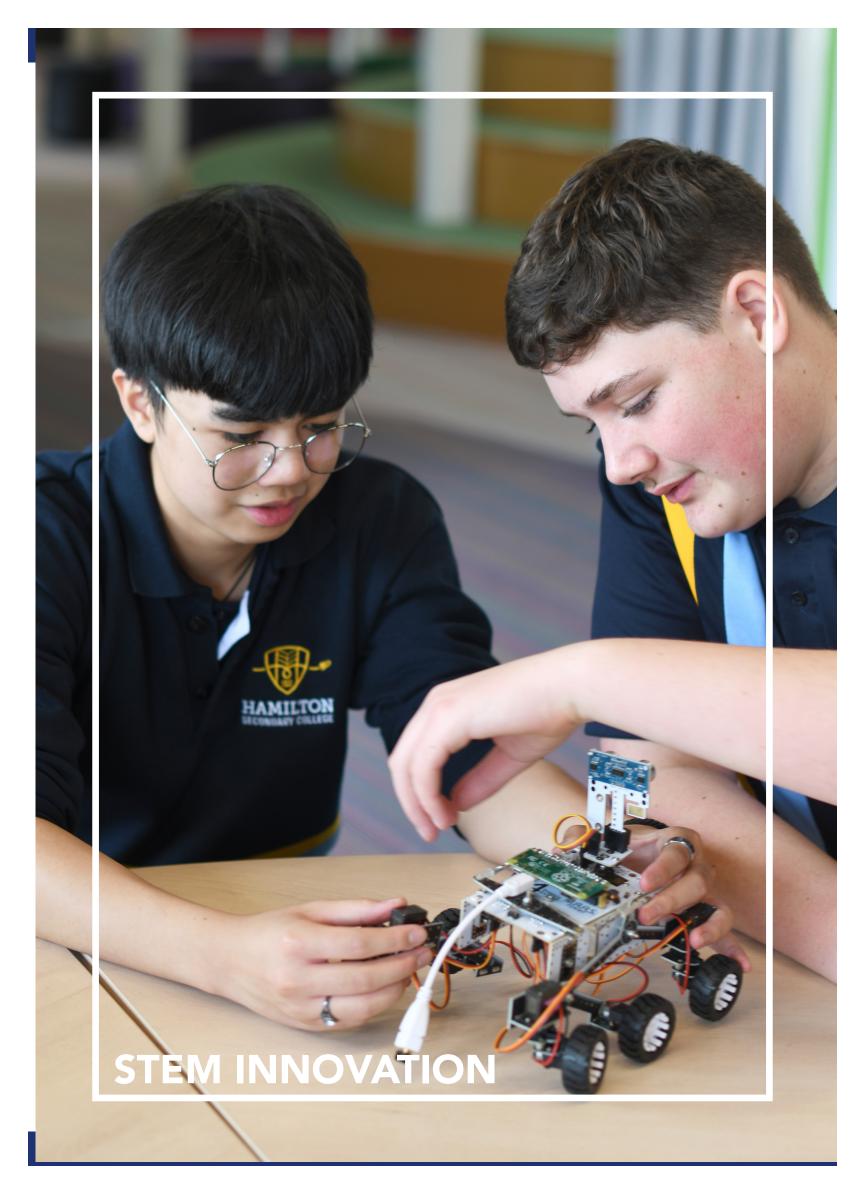
# YEAR 9 BUSINESS COMPUTING

The Year 9 Business Computing elective class studied 4 units of the Certificate III in Business. They learnt about using business software applications and digital technologies. The students also focused on employability skills such as how to develop effective problem-solving skills and the skills required to work effectively in a business environment.









# SPACE

With Australia's aim to continue growing its space sector workforce to reach 30,000 direct jobs by 2030, education is widely acknowledged as an integral pillar to achieving this target.

In response to this national target, Hamilton Secondary College as a year 7–12 South Australian government STEM focus school, has developed a bold vision and expert capabilities to support the development of a robust educational pipeline to a career-ready space sector workforce by inspiring students to engage deeply with STEM learning through the application of space education as its core foundation.

Our vision is founded on two pillars:

- Educating students about Space across the primary and secondary years;
- Linking education to the Space Industry.

At the start of 2022, we were excited to welcome 16 Year 7 and 8 students who successfully applied to be part of the inaugural Hamilton Secondary College Space Academy. This is a dynamic and innovative ongoing program with the students having a class line specifically linked to the study of Space. Their Space linked studies are designed to empower students to develop passion and skills, knowledge and experience to prepare them for university and further education linking to opportunities in the space industry.

Designed to incorporate hands on and interactive programs across a wide range of Space topics, with a complicated start to the year our Space Academy students began with a high level coding course with GROK, designed posters on "Why travel to Mars" and completed our Hamilton Secondary College "Mission to Mars" and Mars Geology Practical Program. Further studies included investigating Space living conditions and Space Suit design, Plants in Space and Terrariums, Robotic Lego Mindstorms and "Ruff Rovers", becoming 'Carbon Farmers' at the end of the year as part of the International Magnitude ExoLab-10 Astrobotany linked with the International Space Station Program.

Where possible, each topic included an associated Excursion or Space Industry Researcher/Personnel "Incursion" speaker. One highlighted speaker was Associate Professor Jenny Mortimer who spoke about research in the recently awarded 'Plants in Space - Centre for Excellence', a \$38 million, 7 year program based at the Waite Campus of the University of Adelaide.



In an associated excursion, the Space Academy class investigated the challenges of providing food to astronauts on a long journey. Experiments were done, with mixed success, to see how well food crops could be grown in a terrarium. Students attended a workshop at Waite Institute, they discovered, firsthand, that our perception and appreciation of food is very dependent on its appearance. By the end of the unit, students realised that it's very difficult, but not impossible, to give astronauts a healthy, diet using food that can survive the ravages of space.

Hamilton Secondary College coordinates Space Passport Sessions at the 13th Andy Thomas Space Foundation Space Forum, 15 of our 2022 Yr 7 and 8 Space Academy students were able to talk to a wide variety of Space Industry personnel and Space researchers about future Careers, Pathways and subjects they need to access their Space futures.

Many students found a wider range of Engineering Careers than expected at the University of Adelaide's Ingenuity Showcase in Oct, 2022 and some future 2023 Space Academy students participated in another Space Passport session at the Department for Education Space, Defence, ICT/Cyber & Creative Industry Career event in Nov 2022.

The Space Academy "Why travel to Mars" Posters were presented to Industry and members of 7 other SA schools during the Launch of the Andy Thomas Space Foundation 'Mars Challenge' program (coordinated by Hamilton Secondary College) awarded successful applicants with grants to develop Space Curriculum linking the Buzz Aldrin Space Foundation Giant Mars Map, Space Technology and Australian Curriculum. The Hamilton "Ruff Rovers" project involved students designing modifications with STEM adaptive manufacturing technology to school robots to enable them to traverse rough territory in the school STEM garden and 'Mission to Mars' crater, linking the Giant Mars Map to the types of territory and geological topology that current and future Mars Rovers need to transverse.



High level coding skills started with GROK was used to program the robots which will also be fitted with sensors in future years to detect hot and cold areas within the Mission to Mars crater. Each Space Academy student was awarded a Blue CSIRO CREST Design and Technology Award as part of the project showcased by class selected students in October 2022 at the Space Discovery Centre.

Volunteer Space Academy students also showcased the STEM Centre, 'Mission to Mars' and new Planetarium to visitors to the school for the Learning Environment Australasia tour, a Presentation from the NASA Space Communications and Navigation (SCaN) division in the 2022 July school holidays (presented in partnership with the U.S. Consulate General Melbourne) by Greg Mann, NASA International Programs Specialist on 'Humanity's Return to the Moon and How Australia Is Helping Us Get There' which discussed NASA's Artemis program, returning astronauts to the Moon and preparing us for landing humans on Mars. The current – and planned – participation by Australia in support of the Artemis Mission, space communications and many other questions were answered after a fascinating talk and strong Q&A session.

Many of the Space Academy students also supported Space Education Displays from Hamilton Secondary College – Space School at Science Alive, the Royal Adelaide Show 'Mars Globe' Competition (won by a Yr 6 from our nearby Black Forest Primary School) and the final showcase of the ATSF "Mars Challenge" at the Australian Space Agency Space Discovery Centre.

Some students packed even more Space studies into their lunchtimes by joining the new 'Astronomy Club' in the Planetarium each Thursday lunchtime with our Astrophysics specialist teacher Ms Natasha Atkins. These sessions allowed the development of a Year 7 "Indigenous Astronomy" and Year 10 Astronomy projects which will now have a permanent place in our curriculum.



The Mission to Mars Initiative which operates in the Hamilton Space School and our initial Space Program continues to grow in popularity, being pivotal in educating Hamilton students about space as well as students across all South Australia, including widening the participation of those from rural and disadvantaged metropolitan schools.

It has provided students with an exciting platform to develop a richer understanding of current global issues as they are challenged to reach evidence-based conclusions about Mars' habitability. The underpinning learning is strategically aligned to the Australian Curriculum, enhancing students' science literacy and numeracy capabilities, and enabling them to apply their mathematical and science knowledge of space to highly immersive tasks as they explore the Mars surface and we look forward to extending the program and creating new linked programs with the new Planetarium in 2023.

Finally, we were delighted to award two Space Awards at Presentation Night to Year 7 Space Academy member Mary and Year 9 Oz for their contribution to and promotion of Space Education at Hamilton Secondary College in 2022. We look forward to the current class moving onward as the Year 8/9 Space Academy and welcoming a new class of Year 7s in 2023!



# **MATHS**

Mathematics teaches us the processes of problem-solving, and who goes through life without having to face some tricky problems? Often what is learned in Maths will help us resolve problems that we haven't even thought of yet. This applies on an individual basis, but also applies to solving the critical issues that we, as a human race, face in the Twenty First Century.

Secondly, research shows that doing Maths is one of the best brain gym activities. Our brains are like muscles: the more we use them, the more efficient they get. So, you can improve your intelligence and IQ by doing Maths.

So, with this in mind, Maths programs at Hamilton Secondary College are designed to challenge students in a variety of different ways. We need rigour. Yes, you need to learn and remember some facts and processes! You can't Google every solution. But you also need to have some fun while learning, so teachers pepper their programs with activities to encourage creativity, to get students to think outside the box, and to struggle with problems that push them to their limits.

One approach used this year to tick all of the above boxes has been to develop thematic approaches to learning that go across several faculty areas. For example, the Year 7 Extension Maths and Science classes have studied Water throughout the year, using data and experiments performed in Science as a basis for their mathematical studies. The skills learned in Maths have been applied to improve students' understanding in Science. This program culminated in an excursion to Warriparinga Wetlands, where stu-dents put into practice all of their learning throughout the year.

During Terms 3 and 4, the Year 10 Extension Mathematics students investigating various types of functions including exponentials and polynomials. They were then set the task of creating their own artwork on Desmos by modelling lines and shapes with different functions.

In Term 3, the Year 11 Maths Methods and Physics students went on an adventure to the Tonsley Campus of Flinders University. Here, they met up with some students who are currently studying their Honours in Mathematics and Electronic Engineering. The Hamilton students participated in two workshops and had a tour of the Tonsley Campus.

The first workshop was The Secret to Secret Codes where students learned how to code and decode secret messages using Caesar Cyphers. This had links to Stage 1 Mathematics where students used combinations, factorials and conjectures to learn about different types of encryptions. The second workshop was Sound Through Light where students created an electric circuit to convert the sound from their phone into electrical energy, then light energy, then back into sound energy to play through another speaker. This had links to sound and light waves from Stage 1 Physics.

Year 12 Maths Methods students did their folio task on Surge and Logistics Functions, using sophisticated techniques to gain understanding of pandemics, medicinal drug effects, limited population growth, etc. The skills developed here will be very useful as they go on to tertiary education.







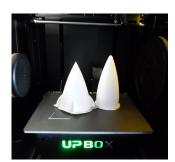
Science, Technology, Engineering and Mathematics (STEM) is an important cross-disciplinary subject at Hamilton Secondary College which increases student interest in STEM related fields and improves their problem solving and critical analysis skills. Other Advanced manufacturing skills including Design Engineering, 3D Printing and Laser cutting help build skills for the future. Different types of learning in STEM include Challenge based, Project based-, Problem based and Inquiry based-learning provide diverse ways for our students to experience, explore and construct their understanding of STEM and the individual disciplines it embodies.

In 2022 our STEM students from year 7 through to year 10 learned programming skills with Python and C languages for robotics. They explored the concepts of artificial intelligence and machine learning, investigated cybersecurity and designed their own app. Students were able to use their imagination to terraform new worlds and survive extreme temperatures in space by designing and testing their heatshield inventions. Innovation was a highlight throughout the year, with students being challenged to work within budgets for materials, and design objects to fit specific size constraints, testing their ability to measure and keep to scale.

Four of our students attended the STEM Aboriginal Learner Congress on the 18th, 19th August, 2022 organised by the Department for Education and the Young Aboriginal STEM tThinkers of South Australia (YASTA). This event is the biggest STEM event and the only one of its kind for Aboriginal and Torres Strait Islander children and young people in Australia. The congress aims to engage students with science, technology, engineering and math learning and industry experiences to inspire them to realise their aspirations and take on challenging subjects at school and in future learning.

# **STEM**









The congress is designed within an Aboriginal community context, to enable students to explore the skills needed as future STEM innovators and problem-solvers. Our students really enjoyed the STEM activities and workshops, particularly activities which demonstrated the use of resin in the construction of Aboriginal tools and ways to evenly distribute water.

We were also very impressed with our Year 7 students making the Top Ten in the Department of Defence Inaugural Digital Defenders Cybersecurity Competition, especially considering most of the other groups who participated are Year 10-12 students (see our students in the bottom left hand corner below on their DSTG base tour). Jamie, Trent, Meharbir, Harper and Tom have been working with their amazing STEM teacher Adam Lewis at lunchtime 'STEM Club' and one lesson a week with their Communication Science Specialist from DSTG Robert McAuley in the inaugural Digital Defenders foundational cyber skills competition and training group. The program was designed to teach students general cyber skills and online safety, and to encourage students to consider a future in the sector. We feel all 5 students could have amazing careers potentially protecting future SA Space data for us all!

# **SCIENCE**



At the end of 2021, Nature, a "weekly international journal publishing the finest peer-reviewed research in all fields of Science and Technology" published that Science Events to watch for in 2022 included Moon Missions, Particle Physics and Biodiversity Targets.

These are topics that our classes at Hamilton may not study directly at school but the skills and knowledge developed by our Science students will enable them to understand these issues in the future and potentially help find solutions.

By studying topics within Biology, Physics, Chemistry, Psychology and General Science, our students gain a deep understanding of matters that affect us all and actively engage in problem-solving activities that expand their scientific understanding. The broad scope of activities undertaken allow both generalists and specialist skills to be developed now and for the future.

Some highlights include our Year 7 Science where students have been busy learning all about Chemistry, Physics, Biology and 'Our place in space'. In these pictures, students are learning how to make their own acid/base detector using nothing more than boiled red cabbage leaves!

During the year, other new classes of Year 8 students showed what Science meant to them in Title Pages at the start of the year, participated in Science practicals, looked at the vascular system of Celery and mined cookies for chocolate chips.

Finally, as part of their studies, our Year 10 Science Cohort have been investigating the small subject that is our Universe, with topics ranging from the Big Bang Theory to the life cycle of stars. Although this is already a fascinating subject, it was made even more engaging by our ability to utilise the fantastic new planetarium here at Hamilton Secondary College. Our resident astronomer, Ms Atkins, took our students on a fascinating journey through space, where she answered such questions as 'what is a black hole?', 'how are stars born?' and 'how did Indigenous Australians use the night sky?'.









# PHYSICAL EDUCATION

2022 has been a busy year in the Health and Physical Education faculty with many highlights throughout. There have been many high quality teaching programs implemented across the college in both middle and senior school classes. In addition to this, students have been involved in sport, health and physical education in a range of different settings and at different levels.

Students across the college developed their practical skills, leadership, communication, teamwork and initiative through a range of practical units.

Assessment plans included Basketball, Softball, Badminton, Floor Hockey, Golf, Australian Rules Football, Table Tennis, Netball, Aquatics, Fitness Testing and Volleyball, just to name a few.

Students have also built upon their understanding of a range of theory concepts including Fitness Components, Nutrition, Mental Health, Sexual Health and Relationships, Body Systems, Determinants of Health and Energy Systems. A special mention needs to be made to both the Yr 11 and Yr 12 Sports Studies classes who helped run multiple events throughout the school year that many students will remember for years to come. One event in particular was the whole school Colour Run in Term 4.

This event was carefully planned out by the Yr 11 students who created a course through the school and coordinated the students on the day. In addition to this, the Yr 12 students ran several events on sports day and coached the Yr 9 students in a range of sports. Both Yr 11 and Yr 12 Sports Studies classes also honed their kayaking and windsurfing skills at Port Noarlunga Aquatics Centre throughout the year. A further highlight from the year was the mental health improvement sessions that the Yr 12 Health and Wellbeing students ran that included a self-esteem boosting session, art therapy, messages of kindness and social isolation reducing morning tea.

Well done to all students who participated in HPE lessons and events throughout 2022. I'd also like to acknowledge the hard work of the Health and Physical Education teachers across the college.







The Unit and Special Classes participated in the Parallel Track and Field Carnival at Salisbury along with other schools. The students happily participated in a variety of events.

Despite the unseasonal cold weather, the Hamilton Unit and Special classes participated in Aquatics at Noarlunga Beach. Students developed their water safety and awareness skills whilst enjoying surfing, fishing and canoeing.

### **SPORTS DAY**

Hamilton Secondary College has long had a reputation for a fun and competitive Sports Day and 2022 did not disappoint. Our Sports Day has a unique blend of traditional athletic events and fun novelty events. The red house was able to turn the tides after blue had won the last two years.

The eagerly-anticipated staff vs students relay was a highlight of the day with absolute carnage ensuing. The baton change of Mr Wright and Mr Fisher 2 was a disaster, this was just a sign of things to come with Mr Hubert badly pulling a hamstring. This completely ruined the chances of the staff getting one up on the students. Unfortunately, Mr Hubert was be seen limping around the school for up to six weeks after Sports Day.

A special mention to the students who won the best performing athlete for their age group. The students were: Brody, Kaya, Chloe,Luke, Blessing, Mohammed, Salma, Dominik, Brendan, Alsea and Joel.





# YEAR 11 AND 12 AQUATICS

This year as a part of the Year 11 and Year 12 SACE curriculum, students attended different aquatics sessions throughout the year where the focused on developing and improving the technical and communication skills required to effectively participate in kayaking, surfing and windsurfing activities.









# YR 11 SPORTS STUDIES WHOLE SCHOOL COLOUR RUN

This year as a part of the Year 11 SACE curriculum and PE week, the Year 11 Sports Studies class held a whole school colour run, where they applied different coaching techniques they developed throughout the year. They worked well together to ensure this was an effective event held in Term 4. A great effort by all students and staff who enjoyed participating in the session. Well done to the Year 11 students on a fun an active afternoon that was thoroughly enjoyed by all involved!









Once again in 2022, Hamilton Secondary College was well represented in the Southern zone after school sport competitions. After school sport gives students an opportunity to compete with their friends and classmates in a competitive and fun competition. They also learn valuable lessons about teamwork, fair play and sportsmanship.

In the term 1 competition we entered six teams, which were: 7/8 boys' Soccer, 9/10 mixed Volleyball, 9/10 boys' Basketball, 7/8 boys' Basketball and 7/8 girls' Basketball. It was especially great to give our year 7 and 8s their first taste of after school sport at Hamilton Secondary College.

For the term 2/3 competition, we entered an additional three teams, which were:9/10 boys' Volleyball (2 teams) and 9/10 girls' Volleyball All three teams gave their everything each week. With the highlight of the term 2/3 competition being when the year 9/10 girls' volleyball team lost in a nail biter to Unley for the championship pennant.

The term 3/4 after school sport competition saw us enter another three teams including: 7/8 boys' Basketball and 9/10 boys' Basketball. The competitiveness and effort from these teams has been a highlight of this term's competitions.









# STATE WIDE COMPITITIONS YR 9/10 BOYS VOLLEYBALL

A group of very enthusiastic and passionate volleyballers from year 9 and 10 participated in the first round of the state-wide volleyball competition for year 9 and 10 boys on the 2nd of June. We came up against some strong competition on the day winning games against Unley High School and Sacred Heart College. We narrowly lost to Adelaide Botanic High on the day and this unfortunately meant we weren't able to advance to the final round. However, the boys played some amazing volleyball and were competitive in every game they played. They have shown a strong commitment to volleyball this term taking every opportunity to practice their skills. Well done boys.



### **OPEN BOYS FUTSAL STATE-WIDE COMPETITION**

A group of very passionate and talented futsal (indoor soccer) players from year 9 to 12 participated in the first round of the open boy's state-wide futsal competition on the 19thth of May. The team came up against some strong competition on the day winning games against Adelaide Botanic, St. Francis and ASMS. The team lost Roma Mitchell and had a tightly contested draw with Unley. These results meant that the team was unfortunately not able to qualify for the state finals. However, the boys played some amazing futsal and competed hard in every match. They are a very passionate bunch of futsal players and will look to improve on this result in next year's competition, a real possibility as many of the students in the team are in year 11 or younger. Well done boys.

### YEAR 7/8 MIXED NETBALL CARNIVAL

On Thursday the 3rd of November, 17 year 7/8 students participated in a mixed netball carnival at Blackwood High School. We entered two teams, who both competed hard and demonstrated excellent sportsmanship. This day was a great opportunity for our year 7/8 students to participate in a sport and develop their teamwork and leadership skills.



# ICE FACTOR

### **ICE FACTOR 2022 SPORTS**

Ice Factor provides an extraordinary opportunity for a group of Hamilton students to experience the exhilarating sport of ice hockey. In Australia, it would be fair to say that ice hockey is a minority sport that is sometimes labelled "alternative" or "extreme". Most students have never been exposed to the sport or ice skating and therefore all start at a similar ability level. The program aims to provide life skills and use the sport as a vehicle to develop discipline, responsibility, organisational skills, and self-belief.

This year, our team was full of experienced players, who have been with the program for at least 2 years. This year, the focus was developing their leadership skills and fine tuning their ice hockey skills, which were already impressive.

This year was my first experience of taking the team and was impressed with their ice skating skills. These skills take months, if not years to develop and this group made ice skating look like a fine art.

Each Term, the Hamilton Hornet's participated in an interschool Ice Hockey Tournament. They went from strength to strength, with sheer determination came 2nd in each Tournament. This is due to the solid foundation of now what are considered an experienced team, who are as fast and agile as any of the more experienced players, including Dominik, Tyeson, Jayden, Tyla, Roy, Xander and Amar. At the trainee level, Rhys overcame his initial instability on the ice, now presenting a solid, coordinated, defensive wall against the onslaught of the opposition. Onward towards the finals at the end of Term 4; Victory awaits.





# CLASS OF 2022























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