From the Principal

As part of the school’s overall strategic direction we continue to focus on contemporary learning skills such as creativity, collaboration and critical thinking. An article from The Age newspaper came across my desk recently in relation to the importance of these skills, that I would like to share with you.

‘Fifteen-year-olds can expect to have more than 17 jobs in five different industries over their working lives. So, why aren’t they ready? We need to teach enterprise skills, starting in primary school and building year on year throughout high school. These must be taught in ways students want to learn, through experience and immersion with peers.

So, what do you want to be when you grow up? We have been putting this question to children and young people since the start of the Industrial Revolution. Whatever answer young people proffered — engineer, accountant, hairdresser, dentist, teacher, scientist, doctor — would then point them to the training they would need, and whether they should go to university or TAFE or enter an apprenticeship.

Today that question no longer serves. The assumption on which it is predicated — a single career for life in a stable workforce — is now false. The world of work is in a massive transition to an ever more global, technology-driven, flexible economy in which whole professions are being altered, new professions are coming into existence, and traditional jobs are being swallowed by automation.

To cite just one example, app developers were a rare breed until the launch of the iPhone in 2007; now it is a thriving industry in its own right — at least for now, until a new technology comes along and apps face their own Kodak moment.

One report, “How Young People are Faring”, released in September last year, examined how — and how well — young Australians are being prepared for this new reality. In the new work order, young people will need excellent enterprise skills — digital literacy, critical thinking, creativity, financial savvy, flexibility, the ability to collaborate, self-sufficiency — to survive and thrive in a radically altered economy.

Since 2013 the demand for digital skills has increased by more than 200 per cent, critical thinking by more than 150 per cent, creativity by more than 60 per cent, and presentation skills by 25 per cent. These are the new basics that entrants to the economy already require, and which will be essential in the future.

We need to support our teachers to equip students for the fluid, complex, enterprising new work order. Concurrently, parents must be provided with information about the skills their children will need to craft and navigate multiple careers. Urgently, we need to engage students, schools, industry and parents to understand the new work order, which although less stable and predictable, is rich in opportunity.

We will achieve a future-ready workforce by embedding the new basics in the DNA of future generations. By investing in the next generation to equip and inspire them for a radically different future of work, we will ensure Australia’s future prosperity.

Next time you are talking with a child or young person about their future, instead of asking, “So, what do you want to be when you grow up?” ask them: “So, what kind of opportunities do you want to create?”

Frank Pikardt
From the Year 12 Deputy Principal

Recently I attended a conference where many aspects of positive education were discussed.

One of the strongest factors affecting students’ performance (stated by John Hattie and other educational gurus) is the role of the teacher. We are incredibly fortunate at Freshwater to have an excellent teaching staff who are committed and care passionately about students and their learning needs.

When I ask students about their relationships with teachers, generally I receive a positive reply and most say they like their teachers. When I delve deeper and ask students about the connection they have, meaning are they being truly helped and taught, are their strengths and weaknesses being addressed and is their learning meaningful and pitched appropriately, there is a more varied response. For many, the connection is strong, for some it could definitely improve.

As young adults, I always encourage students to take responsibility for their affairs. In our context, this is a very significant course of action. If something requires a re-explanation, a slower and simpler instruction or clarification, students must address this and involve their teachers. They must speak up and seek assistance. Feeling isolated and out of touch with the rest of the class is not a pleasant sensation and to avoid being left behind, students need to be proactive and revise, complete homework and projects, and study regularly as the HSC draws near.

I have been interviewing students in recent days about their Semester 1 reports. These provide students with feedback, advice and suggestions, highlighting strengths and weaknesses in all subject areas. This needs to be reflected on and measures implemented in the coming months. High achievers should be focusing on maintenance of fine performance, and lower achieving students should consider goals and adopt strategies to refine knowledge and skills strategically to address problem areas.

Finally, as winter sets in, there may be the need to increase the layers of clothing worn to school by students. I would like to ask for your support with this and to remember that the school’s reputation in large measure comes from our appearance in public. If there is a genuine reason that an alternative article needs to be worn for a day or two, a note must be carried by the student that is signed and dated.

Chris Mortimer

From the Year 11 Deputy Principal

As we often do, we dream of getting away for the weekend, to have a break, to recharge the batteries. I did just that by spending the long weekend in Tokyo. I have a very strong relationship with some teachers at Junten High school and each time I visit them I am given the opportunity to question and am challenged by different educational philosophies and pedagogy that exists across the globe.

Whilst Japan is widely considered as a global leader in digital technology, this has not translated into the classroom. Chalkboards, exercise books and pens are the staple of education. Whilst every student owns a mobile phone, neither these nor laptops are ever visible. Lessons are delivered to large classes from a podium at the front of the room where students dutifully and silently take down notes. Days and lessons are long and elective subjects are few and far between. Students do not sit a single HSC style examination. To matriculate, they take the exam for the University they desire to attend, often several to keep their options open.

As you can see, our philosophies are significantly different. Here, we encourage communication, collaboration, creativity and critical thinking. Digital devices are used as tools to augment the teaching and learning cycle and lessons are differentiated to cater for the learning styles of all. The sharing of ideas is encouraged and group work is commonplace and recognised as essential in our collaborative learning environment.

At the core and without any judgement implied, the most significant difference I can articulate is that at Freshwater, we are ultimately focused on developing life long learners and not just targeting a summative exam at the end of their schooling.

Darren Percy
From the Year 12 Advisers

Lisa Peterson                                      Glenn Bennett                                 Leanne Turner

Year 12 are now well into their studies with only a week until the end of Term. It has been a busy time, with students completing assessment tasks and with the onset of deadlines for subjects with Major Projects. Reports were sent home a few weeks ago and it is important to now use the information teachers provided as a guide to planning the remaining 12 weeks of school life to achieve the greatest success. Students should use the rest of this term to consolidate their knowledge, reflect on tasks and move forward. Attending all remaining lessons, organising their notes, engaging classroom teachers in conversations regarding additional work that would benefit progress and completing HSC style practice questions will assist students prepare over the coming months.

As we move towards Term 3, those students who have worked with Mr Mortimer to organise a study schedule and personal plan need to make sure they are sticking to it to gain the most advantage. Checking in with the Year Advisers every couple of weeks is a great way to stay motivated and keep on track with the goals set. Walking past the Library and study rooms each day and seeing the students working on their assessment tasks, homework and revision work in such a dedicated manner (and in such lovely settings) gives us a great sense of pride for the Year group.

Students who have been attending the Learning Hub in the library after school on Mondays have benefitted from conversations with their peers, School Learning Support Officers and teachers. The idea of this session has been to create an informal setting in which students have an opportunity to seek extra help outside the classroom. Often the best teachers are peers and helping each other explain an answer to a Maths question or plan a Legal Studies response, can achieve the best results.

Another way to ensure you are setting and aiming to achieve your goals is to have a chat with the Careers Advisers to make sure you have a clear idea of the results you need, in order to get where you want to be in the future. See them in their office anytime to make an appointment, especially as University course choices need to be entered early in Term 4.

Students need to start getting organised for their Trial exams which begin on the 1st August (Weeks 3 and 4) next term. Time is becoming a precious commodity and it must be used wisely. Over the holidays, students should be completing their Major Projects and begin revising and looking back over the years work, ready for the Trial exams.

As always, the abundant talent among the students has been apparent this Term, from individual and group performances in our Year assemblies every two weeks, to the sporting achievements at the school and Zone Athletics Carnivals and knockout sports. It was fantastic to see the students dress up and get involved in the fun side of the Athletics Carnival.

Lastly, a reminder to book tables and pay for your Formal tickets as next Term will fly by!
From the Year 11 Advisers

Shannon Cooper                          Dave Watkinson                          Janelle White

Urban Challenge

Year 11 students did us proud as they took to the city on the Urban Challenge on 1st June. Meeting at Manly under grey skies did little to dampen our spirits, and the teams were dressed to impress – with Team 11 (aka the Pink Team) being rewarded for their efforts. The day was shaped by each team receiving clues by singing, negotiating or unravelling riddles. Each team member had a specific role and the team’s progress was charted in a blog that was published throughout the day. The pace of the day was up to the team to decide as was their route through the city. From what we, the Year Advisers saw, a LOT of fun was had.

We would like to take this opportunity to publicly acknowledge and thank the 20 teachers who accompanied the students as we couldn’t have done it without them. Another special thanks to the ladies in the Front Office who supported us in this venture.

Now, it’s over to the students’ insights into the day.

Team 1 dressed ‘Sir’ in a classy tie from Vinnie’s and then ... while... the hot, spicy food from Spice Alley burnt the mouths of Team 2, laughter and gossip was spread across the tables and ears of all.

Team 3 would like to say thank you to Jasmine our Urban Challenge leader and to our lovely teacher Mrs Leonard. It was a great day despite the cold and rain but overall we had an awesome time ... and #urbexfreshteam 4 never stays behind ... still in the lead Team 4 take King ping bowling, smashing teams and getting great scores.

Team 6, aka the dream team were incredibly comfortable and definitely not regretting our choice of theme (pj’s) ... their challenge was to get 100 consecutive hits in a game of ping pong, which we completed on the first go.

Team 7 followed and solved clues all around the city taking in various sights and discovering every nook and cranny of the city while building up our friendship, communication and teamwork skills.

Team 8 found it to be overall a very tiring and intense day but also very fun and engaging. The team worked well together and all had a great time!

Team 9 had lots of clues to solve and challenges to complete! Some of these included sending a postcard back to school and singing a song to a candy shop. We had lots of fun throughout our journey and we would like to thank our teachers, guides and fellow team members for making the day such a success!!!!

Team 13 had a great time, singing, dancing and working together to find out all of the clues and tried as much as we could to embrace our inner 80’s, aerobic selves and had as much fun as possible!

While for Team 15, overall, it was a very successful day, working together and taking responsibility for our individual roles.

The final word goes to Team 16 who all agree that the Urban Challenge was a day well spent. :)
From the Learning Support Co-ordinator

The school will soon be asked to participate in a reporting process called the Nationally Consistent Collection of Data on School Students with Disability (NCCD). This process collects information about:

- how many students with a disability are enrolled in Australian schools
- where these students are located
- the broad level of reasonable educational adjustment provided to assist them to participate in schooling on the same basis as other students

Leading up to this, the school has now begun a review to reflect on the processes and quality teaching practices that we put in place at Freshwater Senior Campus to identify and support students with learning needs and identify how these can be improved.

Protecting the privacy and confidentiality of all children and their families is an essential part of this process. As part of the data collection personal or confidential information will not be provided to anyone not authorised to see it.


Marie-Anne Sykes

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From the Head Teacher Secondary Studies (Relieving)

I recently attended a conference focused on the power of ‘Positive Education’ and the ingredients required to turn the idea of positive schools into a reality. The key note address was given by Dr Michael Carr-Gregg, a well-known child and educational psychologist. Some of his presentation included content from a recent survey conducted by Mission Australia https://www.missionaustralia.com.au/what-we-do/research-evaluation/youth-survey with some findings giving particular food for thought:

“…Young people were asked to rank how concerned they had been about a number of issues in the past year. Nationally, the top three issues of concern were coping with stress, school or study problems and body image, with around four in ten respondents indicating that they were either extremely concerned or very concerned about coping with stress, one third indicating they were either extremely concerned or very concerned about school or study problems and around one quarter highly concerned about body image. Around one in five respondents were either extremely concerned or very concerned about depression and family conflict. The proportion of females concerned about each of these issues was much higher than the proportion of males…”

Naturally, we also regularly see a combination of stress, school and study problems in our students. Thankfully, we have an extremely professional and efficient student wellbeing framework at Freshwater that addresses these issues through a range of support strategies. The link between technology and youth mental health was also investigated. Whilst technology can be a great asset, it also has the potential to cause issues such as anxiety, insecurities related to social media, cyber bullying, procrastination and lost productivity. Our students are the biggest users of technology and they download more apps per capita than in any other age group. In an attempt to address some of the concerns around youth mental health, a number of organisations have sought to combine the two and turn technology into a support mechanism.

Cathy Moran
Careers News

HSC and Careers Expo
Year 12 came out in force to attend this Expo recently held at Fox Studios. It was the first time Freshwater had participated in this event, and the feedback from students and teachers was very positive. We welcome any parent feedback but look forward to including this as a part of the Careers calendar for future years.

Macquarie University
Big History Scheme: You could be 12 hours away from three extra UAC bonus points to attend Macquarie University. The Big History Scheme http://www.mq.edu.au/study/high-school-students/getting-into-university/bonus-points/big-history-scheme rewards student commitment to learning by acknowledging completion of the Big History: Connecting Knowledge MOOC (Massive Open Online Course). It is available through the Coursera Platform https://www.coursera.org/learn/big-history/, and students who verify completion of this course will receive three bonus points on their UAC rank to study a Bachelor degree with Macquarie University. The Big History: Connecting Knowledge is a 12 hour, self-paced, independent study course that can be completed by students in Years 10, 11, or 12. It develops skills in problem-solving and critical thinking that will optimise student performance in senior years across all subjects, and prepare them for tertiary studies.

Global Leadership Program
Applications are now open for Macquarie University Global Leadership Program for Year 12 students who wish to study at Macquarie in 2016. Check out the Macquarie website for more details.

UNSW
The Co-op Scholarship Program is now open for application. Go to www.coop.unsw.edu.au. Additionally, www.futurestudents.unsw.edu.au/admission-unsw is an interesting site for some exploring on what the ATARS for entry at UNSW really were last year!

University of Notre Dame
The Young Achievers Early Offer Program is now open. Secure your place at Notre Dame before the HSC! Students can apply under one of the following categories:
- Commitment to community and/or Church
- Commitment and excellence in cultural pursuits
- Commitment and excellence in sporting achievements
- Academic excellence

For more information about any of the above or to make a Careers appointment please visit the Careers Office.
From the Counsellor

In Transit

I am fortunate enough to have just returned from a trip to Spain and England which was wonderful but on the long trip back it occurred to me that travel is a lot like school.

It starts out as an exciting adventure. You pack your bag with everything you think you are going to need, and you have schedules and tickets to ride. You even have a new travel ‘uniform’ to impress the locals and new shoes. You meet interesting people and eat food you’ve never heard of.

The sights are wonderful and there is such enthusiasm for the culture and the history. The excitement of learning everything about all these new things is intoxicating. You read, you listen, you prepare for the next day. You are energised and post photos on Facebook.

Then you find that there are unexpected challenges that you weren’t really ready for. The temperature is not what you expected and so the clothes are not warm enough, the train timetables on the web don’t match reality and so you miss connections, and the museums are closed on the only day you are in town, so a certain travel fatigue settles in. There are some days that are frustrating and you don’t get to do what you had hoped.

How you deal with these challenges can impact on the rest of the trip. They can impede your enjoyment, cause stress with your travelling companion and leave you feeling disappointed and wanting to leave. Alternatively you can see it as just one part of the rich tapestry that is travel and not allow it to ruin the trip.

Then there is the long journey home at the end. Uncomfortable flights, unappetising meals, lack of sleep and increasing stress. At this point you would do almost anything to get out of the airport or off the plane. Sometimes it feels like it is never going to end and that you have no control over your life, let alone your baggage!

But all journeys, good and bad, do end and if the focus has been positive you have only wonderful memories, a sense of achievement and a thirst for the next journey.

Leadership News

James Gordon and I have had the privilege of working with the amazing Leadership Team for 3 Terms now and it has been a delight to watch them mature, not only as school Leaders but as young adults.

When they were first appointed as Leaders they were asked to come up with some achievable goals. One of their key goals was to foster better connections between Years 11 and 12. They felt that this was a legacy that they could leave for the years to follow.

This has always been a challenge at Freshwater. Each group is so large it is physically difficult to have both years in the same place at one time, so assemblies and recreation tend to happen at different times or locations. By the time Year 11 start at Freshwater, the Year 12 students are ensconced in the demands of Year 12 work so there is little opportunity for mixed activities.

The leaders have worked to facilitate the connections in the following ways:

- Giving everyone a ‘voice’ through the student suggestion box

- Attempting to get additional tables so that there is a greater opportunity for all students to have a space to share

- Organising activities at breaks such as table tennis in which everyone can participate.

In addition we are looking at changing the leadership process so that there is the opportunity for the current leaders to mentor those in Year 11 who may be interested in moving into the role in Term 4. This is also a way of taking some of the pressure of the leaders as the stress of the HSC increases.

At Freshwater we try hard to create an environment that fosters academic and social engagement. “Connecting” is one of the key strategic directions in the school plan, and it is great to see these students embrace this concept in their role as Leaders.

Caroline Powell and James Gordon (Leadership Co-ordinators)
Music News

Music students have been busy developing pieces for their practical HSC exams next Term. A valuable part of this preparation is harnessing experiences outside the school walls, participating in ensembles, competitions and workshops. Matthew O’Brien of Year 12 Music 1, recently competed in the Northern Beaches Eisteddfod, achieving first place in his category. He also has developed his performance technique as part of the Arts Unit Senior Big Band Ensemble and has performed at the Sydney Opera House as part of Music Festivals.

The Freshwater Couch Sessions have also developed as a large part of the experiences students use to prepare their performance pieces. It has also seen the return of past students coming back to not only feature in the sessions, but also to accompany and give advice to current HSC Music students. We look forward to inviting more Alumni, family and friends to the Music 1 Showcase Evening on Tuesday 26th July (Term 3 Week 2). More information for the night will follow, but in the meantime, save the date!

Andrew Herft, music teacher

Duke of Edinburgh’s Award News

Freshwater Senior Campus students have continued to work diligently towards completing their Gold Award. In the last school holidays, an enthusiastic team of Gold students participated in their practice hike in the Bungonia State Conservation Area. It was the first time we had hiked into this picturesque part of NSW, and it was a beautiful, challenging and rewarding experience for students from across all the NBSC campuses. Caitlin Salmons of Year 11 was a particularly vibrant and effective group member during the four day hike.

It is also not too late to complete and finalise paperwork for previous award levels from 2015. Drop your signed log sheets to Mrs Busse in the staffroom. However, the previous level must be completed and signed off before you can begin the Gold Award.

Vicki Busse  NBSC Duke of Edinburgh Coordinator
vicki.busse@det.nsw.edu.au
Year 11 students compete in “Da Vinci Decathlon”

On May 25th, a group of students from Year 11 made the journey to Knox Grammar School to compete in the National ‘Da Vinci Decathlon’ Competition. The Competition is held annually for a select number of schools across Sydney and is a whole day of rigorous cross-disciplinary academic challenges. The team represented our school wonderfully on the day, stepping up to every challenge and holding their own amongst the extremely tough competition, predominantly comprised of private and selective schools from all over NSW. Our representatives were nominated by their teachers for showing dedication to their studies and enthusiasm for the school. The team members were: Kelly Chen, Julia Han, Lilly Hobbs, Laura Kokolis, Anna Le, Enora Le Gall, Nat Pierson, Nicholas Van Rhijn, and Valerie Yu. Congratulations to these students for dedicating their time to the training, and for doing our Freshwater school community proud! It was an invaluable experience and these students will be able to pass on great advice to next year’s team.

Charlotte Green, Co-ordinator

Sport Report

We were blessed with a sparkling day for our annual Athletics Carnival and students turned up in numbers with only one thing on their minds, to compete for the ultimate prize ... winning ‘The Bird’. Year 12 looked spectacular with a ‘Bright & Tight’ theme adding colour and fun to the day.

The first event of the day, the boys 1500m, set the tone for the whole carnival with Matt Stirrat breaking the previous time held by Amos Michael (2006) by 4 seconds. From there the records continued to tumble with Amber Moran setting a new mark in the 16yrs hurdles; Sophie Harding – 17yrs hurdles, 200m, and long jump; Grace Hanks – 16yrs 200m, high jump and long jump; and Willson Lowe – 17yrs long and triple jump.

At the end of the Carnival, points were very close and it came down to the relays to determine both the winner of the Carnival and ‘The Bird’. Year 12 dominated the relays and secured the highly coveted trophy. Well done, Year12!
Zone Athletics was held in late May and our athletes were once again, outstanding. Grace Hanks was named Age Champion in the 16yrs girls. Grace and Amber Moran dominated the 16s events, winning 9 events between them; and a 1-2 finish in the hurdles and 100m sprint. It was a joy to see the Freshie colours dominating in this age group. Rebecca Chilcott had a successful day winning both the discus and shot put. Willson Lowe and Samantha Perrin demolished their opposition in long and triple jump.

Good luck to the following students who will be representing us this Friday at the Sydney North Cross Country Carnival in Gosford: James Hockey, Corey Fairchild, Naomi Scott, Amber Moran, Grace Hanks, Samantha Wood, Joel Aitken, Matt Stirrat, Ryan Quinlan and Tom Garland. Congratulations to the following students who have gained selection in NSW CHS teams: Eddy Fry (Rugby Union), Sophie Harding and Ally Green (Football), (Ally was also awarded ‘player of the tournament’) and Aaliyah Paki (Touch).

Lisa Peterson, Sports Co-ordinator

Rugby League Report
Freshwater Senior Campus travelled to Lionel Watts Reserve, Belrose to compete in the Sydney North GIO Cup Gala Day. The boys came up against Cromer High in their first game of the day and came out firing from the first set. Strong carries from Eddy Fry, Alec Panetta and Asher Riese placed Freshwater in an attacking position. Nathan Williams took the ball to a back pedalling Cromer and elegantly placed Luke Pasfield through a hole which led to the centre’s first of three tries for the match. The strong attacking play was coupled with a rock solid Freshwater defensive wall and the boys finished the game winning 22-0.

The second match of the day saw the boys play Davidson HS. The game started much like the first game and the Freshwater team moved the ball downfield led by the unstoppable Eddy Fry who resembled a freight train. The platform set by the forwards allowed the silky Freshwater halves pairing of Nathan Williams and Jeremy Allen to have countless shots at the Davidson line. After tries to Eddy Fry, Nick Hancock and a fourth to Luke Pasfield for the day Freshwater finished with a 16-6 win.

After two strong performances the boys had booked themselves a grand final showdown against St. Paul’s College. The boys didn’t start this game with the same intensity as the first two games and after working hard to defend their line for a number of sets, St. Pauls College scored and went into half time with a 6-0 lead. The boys came out in the second half with purpose, and in their first set Nathan Williams placed Alec Panetta through a hole and the barnstorming back rower was off to the races. Alec got to the fullback and popped the ball to Luke Pasfield who ran in to score his fifth try for the day. With scores locked at 6-6, Freshwater attacked the St. Paul’s College try line and a kick was put up on the last tackle. A group of players from both teams went up for the ball, but only one came down with it: Eddy Fry. Eddy beat three players from 10m out to score under the black dot. The boys held on to win the grand final 12-6. Congratulations to all of the boys for their efforts throughout the day, they now move on to the next level of the GIO Cup tournament.

Nick Grant
Ultimate Frisbee – National Champions

Congratulations to Tegan Holme (pictured second right, kneeling) and Shanaya Strachan (standing behind Tegan), both of Year 11, who represented NSW at the National Ultimate Frisbee championships over the June long weekend. The NSW team played Western Australia in the Grand Final and won the match, making them national champions!

The game can be seen on Youtube at https://www.youtube.com/watch?v=H2ep2MMeBQo

Shannon Cooper

STA (Students Take Action) Report

On the morning of Sunday 29th May, members from the STA group volunteered to door knock around the local streets of Freshwater for the Salvation Army Red Shield Appeal. Over the past 10 years, Freshie students and teachers have helped raised money and spread awareness about the significance to contribute to the Salvos. We split up in pairs and were allocated streets to door knock and to hopefully receive donations. Our smiling faces and the kind hearts of the locals helped us achieve just over $1000 in donations, in only a couple of hours.

Later in the year, STA members also hope to be involved in the Salvos Day and Night Homeless Walk in the city, to get involved with the homeless community and become aware of those who are struggling. The Salvation Army do so much for communities all around Australia; they are a charity that aims to provide support to those in need. In a typical week across the nation, they provide approximately, 100,000 meals for the hungry, 2,000 beds for the homeless, 5,000 to 8,000 food vouchers, and continuous support for victims of abuse and assistance in finding employment.

Alana Katos, STA member
Faculty in Focus

With almost the first semester behind us, the Science faculty have been enjoying innovation, assessment for learning, building literacy and progressing through the courses with our Preliminary and HSC classes. All students have now completed their half yearly tasks and reports have been written. It is a time to take stock, work on areas of weakness and capitalise on strengths as these courses come to an end.

Our faculty members have been attending “Meet the HSC Markers” events and Physics and Chemistry Teachers’ Conferences with a view to staying current with BOSTES expectations, innovative techniques for presenting our subject matter in more engaging ways, and previews of what is in store for the proposed new Stage 6 Science Courses.

Mr Greg Edwards recently accompanied the HSC Chemistry students to the University of Sydney for experiences closely linked to their course work. His report appears below:

On Monday 6th June, Freshwater Year 12 Chemistry attended the Sydney University undergraduate chemistry laboratories. The aim of the excursion was to experience some high end Chemistry techniques using equipment which is not available in school laboratories.

The day started with coffee in the student union building while we waited for everyone to arrive, with some students “checking out” the union shop and deciding which lab coats they would get when they started Science courses next year at Sydney Uni.

Moving across to the Chemistry Building, we were welcomed by the laboratory staff and we were issued with our personal protective equipment for the day, which included lab coats and safety glasses. The students were split into two groups and rotated through 4 sessions:

- Atomic Absorption Spectroscopy
- Gravimetric analysis of ammonium sulfate using precipitation
- Absorption spectrometry to determine the iron content of natural water
- EDTA titration to determine the hardness of natural water

After a quick lunch the day ended with a visit to the Macleay Museum, which holds the oldest natural history in Australia. It was an interesting contrast to the 21st century science experience we had in the morning. The accompanying images convey the events and mood of the day and show that, as is customary, our students represented Freshwater admirably! Our aim continues to be to help our students develop and amplify an interest in and love for all things scientific because Science is just so relevant.

Helen Churchill, Head Teacher Science
# School Calendar

## Last Week of Term 2

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>10 June/July</td>
<td>Y11 Reports posted</td>
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<tr>
<td>27 June</td>
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<td>28 June</td>
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<td>1 July</td>
<td>Last day Term 2</td>
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## Term 3

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<tr>
<th>Week</th>
<th>Monday</th>
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<tr>
<td>1</td>
<td><strong>TERM 3</strong></td>
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<tr>
<td>1 JULY</td>
<td>18 School Development Day (no students)</td>
<td>19 TVET Term commences</td>
<td>20 HSC Major Works Exhibition – Gym 5pm to 7pm</td>
<td>21</td>
<td>22 CHS Cross Country Carnival</td>
<td>23/24</td>
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<tr>
<td>2 JULY</td>
<td>25 Sydney North Athletics Carnival</td>
<td>26 Sydney North Athletics Carnival</td>
<td>27</td>
<td>28</td>
<td>29 Futsal State finals</td>
<td>30/31</td>
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<td>3 AUG</td>
<td>1 HSC Trials start</td>
<td>2 YR11 PDHPE First Aid course</td>
<td>3 Yr 11 Hospitality Workplace</td>
<td>4 Major work - S&amp;C completion &amp; hand in date</td>
<td>5</td>
<td>6/7</td>
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<tr>
<td>4 AUG</td>
<td>8 HSC Trials</td>
<td>9 TVET Trial HSC 2 – 6pm - NBTAFE</td>
<td>10 Major Work - Industrial Tech completion and hand in date</td>
<td>11 Major Work - Industrial Tech completion and hand in date</td>
<td>12 2017 Year 11 Subject Selection Evening for all students</td>
<td>13/14</td>
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<tr>
<td>5 AUG</td>
<td>15 Major Project - Textiles and Design completion and hand in date</td>
<td>16 Yr 11 Hospitality Workplace</td>
<td>17 Principal’s HSC Information Evening – 7 to 8.30pm</td>
<td>18 English Ext Major Works completion and hand in date</td>
<td>19</td>
<td>20/21</td>
</tr>
</tbody>
</table>