Minnis Speakers Excel Again

Last Friday, Duval High School held the annual Minnis Shield Public Speaking Competition. There were many students competing, ranging from Year 7 to Year 12. All students had to prepare a speech and present it in front of an eager audience.

In each division certain topics were allocated and a set time period was put in place. The Year 7s were very keen, with more than 15 competitors prepped and ready to go. In the Year 7 and 8 division the winner was Bradley Lucas with Brianne Saxby, Axel Jedlicka and Nyah Golding all receiving Highly Commended.

In the Year 9 and 10 Scott Lucas came away with the win, with David Wilson, Alma Geesink-Anton and Grace Motley all receiving Highly Commended.

Lucy Eddy was outstanding in the Year 11 and 12 division with her speech on women’s rights. She won the division and went on to be the keynote speaker, presenting her speech at Presentation Night.

So, a huge congratulations to all competitors and we look forward to seeing you at the Minnis Shield Public Speaking Competition next year.
In the old days, the end of Term 4 (or Term 3 as it was then) was traditionally a time of winding-down, of relaxing the pressures of school and getting ready for the Christmas break. Nothing could be further from the truth in today’s hectic educational schedule! Events come thick and fast, even in the penultimate week of the school year, and the pace has actually been accelerating since mid-November.

No sooner had our singers, dancers and musicians returned from successfully representing Duval High at the Schools Spectacular, than a hectic round of celebratory assemblies and reporting commenced. On Monday of last week, for example, our Aboriginal Community Liaison Officer, Carol Green, was here to help us congratulate those Aboriginal students who had achieved Excellence in Attendance. Special certificates, 32 in total prepared by Mrs Melissa Ball, can now be included in the resumes of those students. This was followed by a bumper Friday Assembly, again acknowledging those students who go just that little bit further in their work, or who participate in a wide range of extra-curricular activities on offer here at Duval.

Last Friday I had the pleasure of helping to adjudicate the Minnis Shield Public Speaking competition – and a finer group of young speakers you could not wish to meet. The number of students participating was very pleasing, and just shows the depth of talent we do have here at Duval! The Minnis Shield was won by Bradley Lucas of Year 7, who gave a great speech on the dangers of coal seam gas. The Minnis Cup was won by Scott Lucas of Year 9, warning us all of the deadly threat to our native environment posed by cane toads. Finally, the Minnis Trophy was won by Lucy Eddy of Year 11, who gave a flawless presentation about the importance of women’s education in the world today, using the courage and dignity of Malala Yousafzai as a case in point. As an old Head Teacher of English, I thoroughly enjoyed the whole event. Congratulations to all who took part, and especially to Ms Armstrong and her organising team.

Last night was our annual Presentation Night, when we recognise our best and brightest achievers. The evening featured not only the most numerous set of awards ever to be presented at this school, but a musical performance from Jol Choct of Year 10, who recently achieved his LMusA and is a most talented young pianist.

Today I have sent out a note and a message on our school App to all staff, students and parents informing them that work on our new disabled access lift starts tomorrow! This is very exciting for the school, and will mean that our disabled students will be able to access all areas of the school including the top floor which was previously unavailable to them. There will be some disruption of course, but we think it is worth it to get the process underway, and hopefully see the work completed by about Week 3 of Term 1 next year.

Our annual Term 5 activities also commence this week, and students will be involved in a huge range of interest activities and general learning experiences all over Armidale and district. I want to make a special note of thanks to Ms Jeanette Verwayen who has done an extraordinary amount of organisation to ensure that it all goes off without a hitch.

Coming events

♦ This year’s HSC results will be available from Wednesday, 18 December. We wish Year 12 all the very best, and are confident they will do very well indeed!

♦ Over the school holidays the P&C, Prefects, SRC and staff will be involved in a working bee or two, painting parts of the school including the front entry wall and some of the stairwells. Many thanks to the P&C for coordinating this, and to the Prefects and SRC for having such a keen interest in beautifying the physical environment of the school. Stay tuned to the Duval High School App (available at both the App Store for iPhone and iPad, and the Google Play Store for Android phones and tablets) for further details!

♦ The staff will participate in two School Development Days at the end of term (19 and 20 December), and another on Tuesday, 28 January. The topics being examined on these days will include: supporting students with autism; the next phase of our PBL implementation (Staff Behaviour Matrix); the
renewed Literacy Team and our school-wide Literacy focus commencing in 2014; non-violent crisis intervention training (January); and two programs aimed at maximising student engagement and success at school, ‘Assessment 4 learning’, and ‘8 Ways of Learning.’

- Advance notice of major dates in early 2014:
  - Students in Years 7, 11 and 12 will return on **Wednesday, 29 January**.
  - Years 8, 9 and 10 will return on **Thursday, 30 January**.
  - Our Twilight Swimming Carnival will take place on **Thursday, 6 February** from 4pm at the Monckton Aquatic Centre, following a normal school day and normal sport. Friday, 7 February will once again be an in-lieu-of-school day.

- The P&C are kindly giving each Year 7 student a hat, with a view to encouraging sun safe behaviour.

Finally, may I wish all of our staff, students, parents, carers and community a very safe and happy holiday and a Merry Christmas shared with family and friends! I look forward to working with you all once again in 2014.

_Shaun Cameron_

### ABORIGINAL STUDENTS CELEBRATE

On Monday 2 December, the Aboriginal students with Carol Green, our AEA Leonie Donovan, WiRSO Clifford Cutmore and many teachers celebrated excellent attendance at school. Attendance in class is crucial to success and the students who have shown a real commitment were awarded certificates.

We also celebrated the successes of our students who have participated in the sista girl group, and those wonderful dancers in Schools Spectacular.

#### STUDENT REPRESENTATIVE COUNCIL 2014

Congratulations to the following students who have been elected to the SRC for 2014:

**Arts Captains**
- Eleanor Logan
- Leiman Clayton

**Sports Captains**
- Georgia Ball
- Sam Munday

**Year 10 Representatives**
- Alpena Banfield
- Ben Barton

**Year 9 Representatives**
- Nyah Golding
- Anisha Rajanathan
- Stuart Browne
- Tanvee Islam

**Year 8 Representatives**
- Lily Owen
- Isabelle Winter
- Toby Niemeyer
- Dylan Ramsay

The Duval High School tie is now available for purchase from the school office at a cost of only **$20.00**. It is advisable for all Prefects and SRC students to purchase a school tie.

If any student needs to borrow a tie there is a $5.00 deposit, refundable on return.
THE MATHEMATICS COLUMN

Polyominoes

For the festive season, here is a very simple mathematical idea which provides many possible puzzles.

We all know that a domino is 2 squares joined together edge-to-edge. In the same way we can make a triomino (3 squares), tetromino (4 squares), pentomino (5 squares), and so on. It is not hard to visualise that there are actually two different triominoes, (3-squares-in-a-line and an L-shape). With a bit more thought, we can find five different tetrominoes and twelve pentominoes (shapes turned around or flipped over do not count as different). This picture shows all the possible dominoes, triominoes and tetrominoes.

Your first puzzle is to find all the twelve possible pentominoes. If you want to give this and other puzzles a go, it is useful to have squared paper. Ask any of the mathematics teachers here at Duval HS to let you have a couple of sheets (or, if you prefer, 1cm-squared or 2cm-squared grids can be easily downloaded for free from the internet ready for printing). Once you have a set of pentominoes, (drawn on 2cm-squared paper is ideal), you can cut them out ready to use.

Without giving the game away, each pentomino is hidden in the picture below, each used only once but paired up to mask their identity. It is a nice puzzle in its own right to try to find them all!

The next puzzle is to fit some or all of your pentominoes together like a jigsaw to create rectangles. It is not too hard to fit three different pentominoes to make a 5 by 3 rectangle. See if you can complete larger rectangles using four, five, six or more different pentominoes. If you are keen, it is possible to make a rectangle with no gaps using all twelve pentominoes only once. All of the sizes 20 squares by 3, 15 by 4, 12 by 5 and 10 by 6 can be made, but be prepared to spend an hour or more finding solutions! It may not help you to know that the 10 by 6 jigsaw has 2339 different solutions, but this is still probably the trickiest to solve!

Where to from here? There are endless other puzzles with tetrominoes and pentominoes, including seeing how many copies of a single “piece” are needed to create a rectangle or a larger copy of itself (e.g. four “T”-tetrominoes can form a rectangle but this is not possible with any number of “S”-tetrominoes). Of course we could investigate hexominoes, …

A fascinating application of polyominoes is in the “Game of Life”, a simulation of life and evolution created by English mathematician John Conway in 1970. In the Game of Life, a starting configuration of “tiles” is allowed to “evolve” following a very simple set of rules, often creating beautifully complex and chaotic shifting patterns over thousands of “generations”. In November of this year, the first “replicator” was discovered in Game of Life, an analogue of a living creature which can reproduce a fully functioning independent copy of itself and an important step in modelling life in all its complexity. Exciting stuff for mathematicians and scientists!

J Suddaby

WORLD SKILLS – VET IN SCHOOLS REGIONAL COMPETITION

This year, 11 competitors from around the region competed in the World Skills Commercial Cookery Competition at Duval High School in Armidale. Our Duval representatives were Bryce Gye and Sarah Birmingham, both studying Hospitality in year 11.

The competition required each student to prepare a three course menu for two people within a certain time. The menu included the following:
 années de compétence, y compris la Hygiène, la Santé et Sécurité au travail, la pratique et l'efficacité. La nourriture a également été jugée sur le goûtp et la présentation à l'assiette.

Les deux Bryce et Sarah ont compétitivement le jour. Sarah a été remise le deuxième, étant légèrement battu par un étudiant de du Gunnedah High. Bryce a reçu un certificat de participation.

En tant que convenor pour cette année de compétition, je voudrais remercier les juges : Victor Raszewski - TAFE ; Brian Sweeney - chef de Cotsworld Gardens ; Bernadette Birmingham - enseignant en Hôtellerie de Guyra Central School

La compétition est une excellente opportunité pour les étudiants de démontrer leurs compétences en Pâtisserie et de promouvoir l’état de l’Éducation Vocationnelle dans nos écoles.

Annette Turley
Enseignant en Hôtellerie

YEAR 9 DRAMA VISIT SANDON PUBLIC SCHOOL

A few weeks ago, the students of Year 9 Drama were privileged to be given the opportunity to perform their in-class assessments to the young students of Sandon Public School.

Throughout Term 2, we created plays based on a chosen picture book. We had to make all of our own costumes and props and we had to figure out all of our own staging. Groups in the class had transformed stories ranging from Dr Seuss to the Jewel Fish of Karnak into plays. Another major part of our task is that we had to create our own masks from scratch to fit in with our characters.

We were all greatly received at Sandon, and we thoroughly enjoyed performing our plays. The audience, consisting of year 1 to year 3 students, delighted in our plays, but most of all, we enjoyed performing them. Even though the audience was young, they were marvellous and they made it a joy to perform for them. It was an excellent feeling to know that these students loved these children's stories and in turn loved our adaptations.

This was a fantastic experience for us all and it was a brilliant way to wrap up our topic. Thank you to Mrs Walsh and Mrs Simpson for organising the excursion for us, and we look forward to more drama performances in the future.

David Wilson

Presentation Night photos can be viewed on the school’s website:
http://www.duval-h.schools.nsw.edu.au
ABORIGINAL STUDENTS PERFORM AT SCHOOLS SPECTACULAR 30TH ANNIVERSARY

Seven of Duval’s deadliest Aboriginal students made Duval High school history by performing at the Schools Spectacular held at the Entertainment Centre, Sydney in late November.

Our students were fortunate to dance with 180 Aboriginal students from across NSW. The group were guided by Patrick Thaiday (Youth Leader), and Sidney Saltner (Youth Director) from The Bangarra Dance Company.

Jacob Clarke was chosen by The Bangarra Dance Company to dance in the front row because of his deadly moves.

Our selection for Schools Spectacular was due in part to the dedication of Ms Cullen and Ms Pearson, to whom we all owe our gratitude.

Our chosen students were: Sheridan Boney, Jacob Clarke, Alice Dennison, Shania Kelly, Narree Pittman, Jannifer Roberts and Tamarla Smith.

What a remarkable and unforgettable performance by our students, as it was such an honour to be part of Duval High School history.

Well done!  

Mr Cutmore

The Schools Spectacular was so much fun! Seven Aboriginal students travelled to Sydney and represented the school. This is the first group of Koori students to do this. A great achievement! We loved working with the Bangarra Dance Company and other koori students, and we made great friends with students all over NSW. Our segment was about the relationship between the earth and ocean. While we were in Sydney we visited Redfern and got to see The Block, walked along Bondi Beach and did lots of shopping. Performing at the Sydney Entertainment Centre in front of over 1000 people was a real highlight. We would like to thank Mr Cutmore and Miss Cullen for all their help throughout the week. We hope to try out again next year and make it even bigger and better.

By Jannifer Roberts

I know I speak for all of the dancers that participated in the 2013 Schools Spectacular when I say that it was the most exhilarating experience, truly one of a kind! Staying at Bondi was heaps of fun. We were lucky enough to take part in a contemporary class at the Sydney Dance Company where we learnt about fluid of movement and importance of alignment whilst dancing. Our segment was all about celebrating the Sydney Olympics and our country’s proud sporting history. There were 300 other dancers in our segment who had all travelled from across the state to be a part of this wonderful celebration. The whole experience was lots of fun, one of the best Spec’s yet!

By Jessica Graham

The Duval High School dancers
YEAR 8 VISIT TO THALGARRAH

On the 26 November, Year 8 students accompanied by Mrs Simpson and Mr Korsch, went on an all day excursion to the Thalgarrah Environmental Education Centre. Two trained teachers taught us throughout the day, Matt and Julie. Here we learnt about different animals and their environment/habitat (mainly water animals) as well and plants and their adaptations (ecology). When we arrived we were split into two groups.

The group that I was in went down to the water to catch different animal life. A lot of little bugs and fish filled many nets, with the exception of a few yabbies. After a solid half an hour looking for creatures in the water, we sat down and identified all the different animals, although the majority were the same. Many were amazed by how many different variations of ‘bug’ there is. We made a food web including all the animals we just found. We then walked up to the classroom (as it was very hot in the sun) and here we looked at a few insects under the telescope, then Matt brought out the snakes and lizards.

We then all thoroughly enjoyed our lunch that was organised by Mrs Simpson and cooked/prepared by a few boys in the year.

In the afternoon the groups rotated, so my group was looking at different types of plants. We learnt a lot about different types of trees, their bark and how you can tell the height of it. We walked out the back and wandered through the trees discussing what they were and their environments. Following the teacher we proceeded back out the front to where we sat in groups. Each group was given an iPad Mini and was told to complete the sheets. This included voice recordings and taking pictures of the different plants. We had to find out what type they were and what animals might live off them.

By the time our activities were over, everyone was tired from a big day. We waited around jumping to and from rocks while we waited for the bus. When the bus trip was over we discussed what we had learnt for the day and did a pop quiz, the reward being a single lolly for the correct answer. Overall I think many would agree that it was a fun excursion and everyone learnt a lot from it. We hope to return there next year to grasp the full value of Thalgarrah.

Neve Russoniello

BANDLINK AT NARRABRI

Recently 13 students from Armidale High School, Duval High School, and Ben Venue Public School made their way to Narrabri to take part in ‘Bandlink’, where 153 students from the New England region formed an impressively massive concert band conducted by Dr Ian Cook from the University of Newcastle. Twenty brass, woodwind, and percussion instrumental specialists from the university were also on hand to provide expert professional advice about how to play the instruments and the music. They also gave advice about how to pursue a professional career as a musician.

The students had a wonderful time making music all day for three full days as well as swimming in the pool in the hot evenings, getting to know other musicians from the region, and being inspired to play more often and get involved in instrumental music making. Students interested in attending events like this are encouraged to speak with Mr Myers or Mrs Pearson.
**OUTSTANDING ARTWORKS**

**Blow up stuff at UNE this summer**

DNA, robots, strange gases and explosions... Sounds like the makings of the latest blockbuster movie, but if you’re in Year 9 or 10 at High School, you could be the special effects expert at the three-day Conocophilips Science Experience being held at the University of New England this Summer Holidays.

UNE is throwing open its state-of-the-art research laboratories to High School Science students wanting to get a taste of what life in a science career is really like. Participants will learn how to extract DNA, create controlled explosions, work with different reactive gases and even how to program robots, as they hear from the University of New England’s renowned researchers and lecturers and gain get an advanced understanding of science at the University level.

UNE’s Head of Science and Technology, Professor Aron Murphy said it’s all part of the Conocophilps Science Experience program, designed to give Year 9 and 10 High School Science students a better understanding of the promising career paths available in science.

“From forensic analysis, to experimental physics, televisions shows like CSI and The Big Bang are making scientists cooler,” Professor Murphy said. “The concern is that students aren’t transitioning their abilities and interest in science at the high school level further, into University studies. Australia is facing a shortage of science graduates, even as the demand for trained scientific minds is quite literally set to explode in coming decades. This is a fantastic event, exposing talented science students from across NSW to the practical applications of what they’re been learning in the classroom, giving a greater understanding of the many and varied career paths in science available in the real world.”

The three-day Conocophilps Science Experience is open to students entering Years 10 and 11 in 2014 and runs from Tuesday 14th January to Thursday 16th January, 2014. Cost is $115 and students are encouraged to apply to their local Rotary club to request sponsorship for their attendance.

Subsidised accommodation is offered one of UNE’s famous colleges for those who live out of town or local students who’d like to experience life in a university residence for $50 full board for the two or three night stay.

For more information contact Richard Willis on 02 6773 2615 or to enrol online, visit [http://www.scienceexperience.com.au/](http://www.scienceexperience.com.au/)