It’s Wild in the Warrumbungles

Our Year 7 students reflect on their experiences on the recent excursion to the Warrumbungles.

“One of the highlights of the Warrumbungles was the bushwalking. The panoramic views were AMAZING.” Angus

“I liked the challenge involved in putting up the tent in 50kmh winds!!” Muhaymin

DATES FOR THE DIARY

- 29 Oct - 1 Nov> Yr 9 Newcastle Excursion
- 7 November> Year 7, 2014 Orientation Day
- 11-15 November> Year 10 Exams
- 14 November> Immunisation Dose 2 Hep B all Yr 7 Dose 3 HPV all Yr 7 students + Yr 9 Boys
- 25-28 November> Year 10 Myuna Bay Excursion
- 10 December, 7.30pm> Presentation Night
- 11-18 December> Term V
- 18 December Last day of term for students

In PBL we are looking at gaining a deeper understanding of our National Anthem.
PRINCIPAL’S NEWS

It’s hard to believe we’re into Week 4 of the Term already, things are happening so quickly! One major excursion (Year 7 to the Warrumbungles) is successfully over and another (Year 9 to Newcastle) is already underway. Meanwhile, the Year 11 Geography Study trip to the Gold Coast is looming, and our musicians and singers will soon be off to the Celebration Choir in Sydney.

This does not mean that things here at school are any less hectic. In the last two weeks we have had a major Vocational Education and Training (VET) Audit by the DEC, and I particularly want to pass on my congratulations to Mrs Lana Hardman and our Vocational VET teachers for their efforts during this incredibly busy time.

We have also been busy recognising the performance of our students at the annual ICAS Tests (English, Maths, Science and Spelling) and at the recent Northern NSW Da Vinci Decathlon of the Mind. A large number of students received certificates for their efforts in these competitive tests, and I was particularly pleased to acknowledge Rachel Dawson of Year 10, who achieved a High Distinction in her English tests and was subsequently invited to attend the High Achievers’ Presentation in Sydney. The achievements of our students in the Da Vinci Decathlon were also extremely pleasing, especially the Year 10 team who placed First in this elite event! We have some very talented students here, in a variety of disciplines, and they thoroughly deserve our congratulations.

We also took the opportunity on the assembly to recognise Mr Tom Model, who not only received his Registration with the NSW Institute of Teachers and his coveted Teacher’s Certificate, but also won the Alan Kerr Memorial Award for Early Service Teachers at the Annual Australian Council of Educational Leaders (ACEL) awards night on 25 October. Well done Mr Model!

Last Friday I had the pleasure of representing the school at the Kelly’s Plains Public School Sesquicentenary Celebration. It was marvellous to see yet another member of the Armidale Community of Schools achieving this magnificent benchmark, and the day truly highlighted the importance of Public Education to the children of New England. Congratulations to Relieving Principal, Richard Cotter, and his staff for an excellent day!

I also want to thank our students for their consideration and support for our HSC candidates. They have done everything in their power to make sure the Class of 2013 have the very best chance at doing well in the exams, and they also deserve our thanks for this.

Duval High School is involved in many educational programs aimed at providing the best life-chances for your students. To this end, Ms Susan Hoddinott, Mr Peter Harris and I will be travelling to Quirindi High School next week to observe the Assessment For Learning model in action. We hope to implement this highly-regarded program for our students in the very near future.

Finally, my congratulations to Mr Dave Bieler who has been seconded to Walcha Central School as Relieving Principal until the end of term, and my sincere thanks to Mrs Katy Walsh who has stepped up to be Relieving Deputy Principal in his absence.

Stafford Cameron

CONNECTING TO COUNTRY:
21-24 October 2013

The Connecting to Country Program involved a three day in-the-field cultural inclusion component facilitated by Regional and Local Aboriginal Education Consultative Groups.
The program provides an opportunity for participants to establish and maintain respectful relationships with Aboriginal students, families and communities, at the local level.

This year teachers from Duval High attended the 3 day cultural awareness program which consisted of a field excursion to Dangarsleigh Falls and two days training conducted at Doody Park in Armidale. Teachers in attendance were Vivek Puri, Melissa Ball, Eli Simpson, Lynette Rajaratnam, Chris Spencer, Leonie Donovan and Clifford Cutmore.

Warrumbungles (Continued from Page 1)

“The Warrumbungles was an amazing experience for everyone. I’m sure we all met new people and made all friendships stronger.” Bella

“A great view at the top of Mt Exmouth.” Toby

“We didn’t even have to get down and dirty to get dirty. There was so much ash in the soil.” Robbie

“Warrumbungles was a great experience. We learned lots and made a stronger friendship with everyone. Bushwalking was challenging at times but seeing the amazing view made it all worth it.” Molly and Laura

“The Warrumbungles observatory was huge and amazing. The walk was long but it was worth it. It was great!” Jakob

“One of the highlights of the excursion was skit night. Watching everyone get up and share jokes and other funny things was pretty cool.” Lily

“Nice bad jokes, Mr Craven. Skit night was awesome. Good seeing people get up and performing.” Jess

“The Warrumbungles are good if you like 2 minute noodles.” Brad

“Warrumbungles was amazing. The experience camping in the winds and walking up Mt Exmouth made us push ourselves and it brought friendship groups closer.” Emily
MATHEMATICS NEWS

Australian Mathematics Competition Results

During August a number of students from Years 7-12 took part in the Australian Mathematics Competition. Run by the Australian Mathematics Trust this is a problem solving competition which requires students to attempt some very difficult questions indeed!

I commend all students who took part this year and would like to offer special congratulations to the following students who have received awards.

Year 7
Distinction awards were achieved by Max Westhorpe, Angus Lawrence and Bradley Lucas and Credit certificates were gained by Michael Kuchlmayr and Tung Nguyen.

Year 8
Credit certificates were gained by Tanvee Islam and Mohommed Ahsan.

Year 9
Credit awards were achieved by Scott Lucas, Thomas Bate, Kyle Donnan and Kimberley Rowbottom

Year 10
A Distinction certificate was awarded to Rachel Dawson and Brandy Ritch achieved a Credit.

Year 12
A Distinction was presented to Samuel Oliver and Credits were attained by Anil Rajanathan, Giselle Model, LinJing Yao, and Brittany Singleton.

A big congratulations to these students in particular, but also to all who took part. We look forward to seeing many students participate again next year in this highly worthwhile challenge!

Miss Gow

THE MATHEMATICS COLUMN

A Monster Number

This week’s column is a follow-up to the “Four 4s” puzzle printed last time (Top of the Hill No. 14, dated 11 October 2013).

You may recall that the challenge was to make totals using just four “4”s and a handful of mathematical symbols $\pm \div \times ( ) ! \sqrt{}$

The last two symbols in this list are “factorial” and “square root” respectively. Remember that $4! = 4 \times 3 \times 2 \times 1 = 24$ and that $\sqrt{4} = 2$.

Firstly, an apology that in the last newsletter some of these symbols came out fuzzy in the final printing... but hopefully that just added to the challenge for those interested enough to read thus far!

All totals from 1 to 20 can be made with a bit of thought. Here are possible ways to get three of the trickier answers:

$$13 = 44 \div 4 + \sqrt{4} \quad [ = 11 + 2 ]$$

$$18 = 4 \times 4 + 4 \div \sqrt{4} \quad [ = 16 + 2 ]$$

$$19 = 4! - 4 - 4 \div 4 \quad [ = 24 - 4 - 1 ]$$

Miss Gow

ICAS Mathematics Competition

At the end of Term 3 Duval had a number of students take part in an International Mathematics Competition (ICAS) and our students achieved some fantastic results. Distinction certificates were awarded to Angus Lawrence (Year 7) and Bradley Lucas (Year 7), Mohammed Ahsan (Year 8), Tanvee Islam (Year 8), Matthew Targett (Year 8) and Chenyou Zhang (Year 9).

In addition; Alma Geesink Anton (Year 9), Scott Lucas (Year 9), Winona Rumble (Year 9), Rachel Dawson (Year 10) and Lindsay Symons (Year 10) all achieved Credit certificates.

Congratulations to all these students on their outstanding results and also to the other students who took part in this very challenging competition!

We look forward to seeing even more students take part next year.

Miss Gow
In the final part of the puzzle, you were challenged to write the largest number possible using just four ‘4’s. This is a beautifully simple bit of maths, to which the answer is quite surprisingly large! To begin with, let’s consider two likely contenders: $44^4$ gives an eleven digit number, whilst the answer to $444^4$ has a massive 73 digits. However, these don’t come close to the size of the true monster: “4 to the power 4 to the power 4 to the power 4”.

How big is this number? Note that we evaluate powers from the top down so, knowing that $4^4 = 256$, we can see that “4 to the power 4 to the power 4” means $4^{256}$. This is already quite big. In fact it is massively larger than the number of atoms in the observable universe! As a quick way to explain this, consider that $4^5$ is bigger than 10, so $4^{256} = (4^5)^{51.2}$ is easily bigger than $10^{128}$ (in fact it is approximately $10^{154}$). The consensus of physicists is that the number of atoms of matter in the (observable) universe is no larger than $10^{82}$, made up of maybe 1000 billion galaxies, each containing of the order of 1000 billion stars, each star its own sun with planets, each made up of trillions upon trillions of kilograms, each kilogram containing trillions upon trillions of atoms $[10^{12} \times 10^{12} \times 10^{30} \times 10^{27} = 10^{81}$, allowing another factor of ten just to be on the safe side].

Let’s call $4^{256}$ a ‘big number’!

Now all we have to do is calculate “4 to the power ‘big number’”. This is not just big, it is unbelievably huge! It would fall far, far short to say that this monstrous number is bigger than the number of all the atoms in all the stars in all the galaxies in the universe; a truer picture is that, if we tried to write out this number, the number of digits in our answer would be massively bigger (by a factor of a trillion trillion trillion trillion trillion times) than the number of atoms in the (observable) universe! Putting this into perspective, a billion is quite a large number, but it only has 10 digits. The number of atoms in the universe is a really large number, but it only needs 83 digits to write it out. So our ‘monster number’ is really quite impressively big!

Jamie Suddaby

**SPORTS NEWS**

**Netball**

Duval had three netball teams in the local competition this year: Junior, Senior and Women’s. All teams did well, and the Junior team, sponsored by John Appleton, won their division. The team and the school wish to say a huge thank you to John for his sponsorship.

**Tip No. 5**

Take Care when transacting online - research the supplier and use a safe payment method.

**Tip No. 6**

Only download ‘apps’ from reputable publishers and read all permission requests.

---

30 October 2013

Tip No. 5

Take care when transacting online - research the supplier and use a safe payment method.

Tip No. 6

Only download ‘apps’ from reputable publishers and read all permission requests.
ANTI-BULLYING 2AD/HARVEY
NORMAN BATTLE OF THE BANDS

Duval has three bands in the final of this competition: Ancient Youth, The Window, and Salute to Sundown. Olympian is aiming for the wild card on the 100.3FM Facebook page. The finals are at 7.00pm this Friday, 1 November at the Armidale Golf Club. Good luck to all the bands performing.

BANDCAMP IS COMING!
December 2 – 4 at Narrabri

Professional tutors from Newcastle and beyond will come to Narrabri and work with you to form a large, complete concert band! This camp is for all instrumental players of all ages and experience who play piccolo, flute, oboe, clarinet, saxophone, trumpet, bassoon, trombone, French horn, tuba, drums, percussionists (or piano players with fluent reading skills) of all standards. See Mr Myers for more details.