Events for Term 4, 2017

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Farewell Mr. Wood!

Last week, we were saddened to farewell our fabulous Mr Philip Wood – Deputy Principal extraordinaire at Cumberland High School since 2012. Mr Wood, in his wonderful and student-centred career, worked in 7 public schools and for 35 years dedicated himself to working with young people to enable them emerge the best versions of themselves. Mr Wood leaves a tremendous legacy have impacted the lives of thousands of young people in his career and we wish him the very best as he embarks on a new life adventure in South America tackling the highest mountain in the Southern Hemisphere, and completing the Aconcagua trek. We will miss you!

*Congratulations on an outstanding career Sir!*
Principal’s Voice

Congratulations to our outstanding student leaders as they embrace a new leadership opportunity and commit to raising expectations and enabling student voice to continue to be triumphant and drive improvements within our school community. It was delightful to see so many young inspiring leaders carving out a pathway to excellence for our entire school community through leadership programs such as Peer Support, Peer Tutor Reading, Student Representative Council, Science Inspire Leadership Team, Leo’s Club and Peer Mediators.

Congratulations also to our fabulous drama enthusiasts and Ms Nelson for providing such engaging scripts, entertaining and memorable performances and excellent direction and sound/lighting management.

Our literacy enrichment day was also a wonderful exploration of literacy skill development with the continued support of renowned author Bernard Cohen and our own literacy expert, Ms Bovill. We hope to develop the skills in our Year 9 students that will enable them to excel as they enter Year 10 in 2018.

Ms M. Pikoulas
Principal

Poetry Olympics! On Your Marks, Get Set..Go!

On Friday November 5, Year 10 students participated in a ‘Poetry Olympics’ event. In small groups, students competed to complete various poetry-related activities as an extension on their unit of study this term. This event involved a lot of running around as well as communicating within their groups to select the correct answers. Congratulations to all participants who challenged themselves with the activities at the conclusion of their Exam Week. Further congratulations are extended to those who completed the task in record-breaking time to win prizes and rewards, listed below!

- 1st – Elinor, Tim, Rose and Mackenzie
- 2nd – Isabelle, Catriona, Chloe and Jack
- 3rd – Rebecca, Yuki and Jessica

Ms K. Isachsen
Year 10 English Teacher
Farewell to Cumberland!

This week marks the end of my career and time as both a teacher and member of the Cumberland High School community. I certainly move on with mixed feelings about leaving an amazing school such as ours. Over the course of my more than six years here at Cumberland I have had the privilege to work with two outstanding principals, a highly committed and professional teaching and SASS staff, capable and friendly student body and caring and supportive parents and community members.

I wish everyone associated with this wonderful school all the best for your futures, and thank you for the kindness, support and encouragement given to myself over my time here.

Mr P. Wood
Deputy Principal
Peer Leader Assembly

On Tuesday 28th December, Cumberland High School celebrated its annual Peer Leader Assembly.

Congratulations to all of the students recognised for their selection, participation and commitment to the following programs:

- Leo Club
- Peer Mediation
- Peer Support
- Peer Tutoring
- Science Inspire Team
- Student Representative Council

Ms C. Brown
Deputy Principal
University of Sydney Debating Tournament 2017

On the 6th November, students from Year 7, 8 and 9 volunteered to participate in The University of Sydney’s Debating Tournament for 2017. It was an enriching experience for these students to learn to think critically, to think on their feet and express themselves. Competing against 9 different schools, our Year 9 boys skilfully debated their way through to win the impromptu section! Overall, the judges commended all our school students’ teamwork skills as they displayed their ability to support and appreciate the contribution of each member despite any outcome. Well done to these dedicated and talented students!

Sai Sriman Tadepalli (8) and Lauren Barrientos (11) spoke from their hearts with genuine concern for our society and a desire for positive change. In coming first place last year, this year, we again enjoyed tremendous success as Sai Sriman Tadepalli came third place in the junior section! He was commended on his excellent presentation skills as well as his thorough research into his topic-The need for voluntary work in the local community. With much preparation and care for their chosen topics, all our students presented their speeches skilfully with confidence and clarity. Well done to our talented public speakers!

Ms J. Back
Coordinating Teacher

Soroptimist International Public Speaking Competition

Public Speaking is all about you. What you think, what you’ve noticed, what you want to share with others. At the Soroptimist International Public Speaking Competition, students from Cumberland High School were able to share what they thought and noticed about important societal issues. These included topics on voluntary work, bullying, social media and human rights. Alina Asad (7), Nihar Kadkol (8), Taylor Barrientos (8),
Super Science Report!

Wow! Another action packed year for Science at Cumberland. We've had excursions to ANSTO, Blue Mountains, Lake Parramatta, Warragamba Dam and various experiences at UWS including Science Maths Exposed and Year 12 chemistry Day just to name a couple. Our student Science Team, co-ordinated by Mrs Stead has excelled, delivering our Community of Schools Science program to Stage 3 local primary students on Wednesday afternoons as well as developing and presenting science experiences at Open Night, National Science Week and Inspire Science Day. We have had many students not only take part but achieve at the highest levels in competitions including ICAS and Big Science. Successful Year 11 scientists have graduated from the Future Project with more likely to take part next year. Students participated in Schools Clean Up Australia Day and participated in myriad other Science experiences as highlighted in the stories below.

The Future Project

The Future Project provides opportunities for Year 10 students moving into Year 11 to collaborate with scientists and engineers, solving real-world problems and to communicate innovations to the broader public. Recently, two of our Year 11 students, John Bekiaris and Frishta Pirzad completed the program with a graduation ceremony attended by proud family and Mr. Walford. The Kings School have again invited students from Cumberland to take part in 2018. We have three applicants about to go to interview as you read this. Stay tuned for more early next year. http://www.thefutureproject.com/

Below: The Science Centre and Future Project Laboratory with Mr Walford, Frishta Pirzad and John Bekiaris at the Future Project Graduation with Dr Munro-Smith of TKS
Inspire Science 2017

November 21st saw the annual Inspire Science Day in our school’s hall.

Co-ordinated by Science teacher Mrs Stead with logistical support from Science lab technician, Mrs Jenkins, our super Science Team planned and delivered an awe inspiring Science show for prospective Year 7 students currently in stage 3 at local primary schools. Thanks also to our Deputy Principal, Mr Wood for the presentation of certificates.

Please read on for the report from our Science Team leaders.

Our Inspire Science day went off with a bang, with Ruben, the Surfing Scientist and our brilliant Science student leaders helping the young students to understand food science.

We prepared and delivered experiments that tested for macronutrients in food including sugar, starch and proteins. The primary students enjoyed manipulating the scientific equipment, enabling vivid colour changes and then interpreting their results. Parents also participated in the experiments and were equally intrigued.

Ruben Meerman, the Surfing Scientist is a long-time supporter of Cumberland High School. This year, he didn’t disappoint with his latest, high impact Science show. He dazzled and amazed the audience with his liquid nitrogen demonstrations involving LASERS and balloons.

Overall, it was a great experience that ensured the next generation of Cumberland scientists will have an instilled passion for Science.

Rachael, Charlotte and Adwithiya - Science Team
It's a Bullseye! Year 12 Biology
Eye Dissection

As part of the HSC elective module Communication, students are required to complete a first-hand investigation (experiment) dissecting an eyeball to locate and study the components of the eye. As you can see with your own eyeballs from the photos below, our students did a magnificent job carefully isolating the components of a bull's eye.

The photos on the right were supplied by Emad, Arash, Ali, Calvin and Betty from Year 12 Biology.

The back of the eye is filled with a clear jelly. That's the vitreous humour (second from top), a mixture of protein and water. It's clear so light can pass through it. It also helps the eyeball maintain its shape.

The lens is a clear lump about the size and shape of a squashed marble (second from bottom).

Under the retina, the back of the eye is covered with shiny, blue-green stuff. This is the tapetum (bottom). It reflects light from the back of the eye.

Cool Science Link

Developed by Macquarie University, HSC Study Lab covers the whole BOSTES NSW HSC syllabus including all dot points and every experiment for Physics, Chemistry and Biology.
8 Green and 8 Orange Science Semester 2 in Review

8 Green - In Semester two, in the topic of chemical detective we did a number of experiments, some examples were:

*Escaping Balloon Filled with Hydrogen Gas*

Using aluminum foil, and sodium hydroxide solution, we made hydrogen gas. This gas was collected in a balloon. Once the balloon was released, it flew away in the air, and that proves that hydrogen gas is lighter than the air.

*Images Below: Demonstration of Hydrogen Gas Explosion*

*Copper Extraction Experiment*

We extracted copper. Hurray!

In another experiment, we extracted copper metal from blue colour copper sulfate solution using an iron nail. Once the polished iron nail was placed in the solution, the nail started to change the colour and after three days we saw a brown colour deposit on the iron nail. Also, the colour of the copper sulfate solution became lighter. Why? Because the copper iron in solution converted into copper metal and it was deposited on the surface of the iron nail. The concentration of the copper irons decreased as they converted to copper metal, therefore the colour of the solution faded.

*Image Right: Initial Set Up*
**Copper Extraction Experiment**

Immediately after immersing the iron nail, bubbles were observed on the surface of the iron nail. *(Image Top Right)*

When observed after 3 days a brown flaky deposit on the iron nail was observed. This deposit is copper metal. *(Image Bottom Right)*

**Zoo Station**

In the module called Zoo Station, we learned about the cardiovascular system. We were able to measure the heart rate, using a stethoscope; we measured the resting heart beat and the heart beat after exercise.

The exercise heart beat is much higher than the resting heart beat because our cells need more oxygen to release energy trapped in glucose for the muscles to work in the process called cellular respiration. The heart has to work much harder to supply oxygenated blood to the cells to carry out this function.

In summary, we had a lots of fun while learning Science. Science is hard but our teacher made learning fun and interesting.

**Written by Students of 8 Green**

**Photos provided by Sharjeel Ahmad**

**8 Orange** - We made a lung model using soft drink bottles, drink straws and balloons

We were challenged to make a lung model using basic materials. We were not given any instructions and were told to plan and create the model in a group of 3 people without asking for help so that it made us think creatively as a team and collaborate to produce the product. It was a challenge at first, although we were able to eventually produce a model that was in working condition with all the parts of real bodily lungs.

The first step was to cut the soft drink bottles into halves. Then we cut a straw into half and insert each half into a larger straw creating an upside down ‘Y’ shape.

Afterwards, we attached a balloon to each side of the branching straws. If you were to blow into the longest straw, you would see that the balloons would blow up simultaneously, resembling the real motion of the lungs. Then we inserted the structure into the half bottle and stick the large straw out of the top of the gap. To secure the structure, we made a hole inside of the bottle cap, placed the straw inside of the hole and tightened the screw. Then, to create the diaphragm, used clear wrap and to secure it around the base of the bottle without touching the balloons. The top of the balloons must face the diaphragm for it to function.

We tested the model by slightly pulling the clear wrap up and down. We saw that the lungs inflated without being blown into the large straw exactly resembling the lungs and their repetitive motion. This model was created to show a source of visual revision on the topic of the human respiratory system. *(Image Below)*

**Written by Saisriman Tadepalli**

**Edited by 8 Orange**
Year 11 Earth and Environmental Science - Blue Mountains Field Trip

In our EES excursion, we learnt so much from our assignment, by actually going to the Blue Mountains and seeing everything first hand made the assignment so much fun and relevant.

The excursion also helped the students in the class to get closer together and we’re glad to have a wonderful teacher to organise all this for us and make everything fun.

Tahoura Gholamitehrani
Year 11 Earth and Environmental Science

Blue Mountains Photos

Clockwise from Top Right: The class at Echo Point, Jamison Valley, our trusty school bus, the Scenic Railway, an old coal mine.
National Science Week 2017

Another year and another famous CHS National Science Week!

This year’s theme: Future Earth.

Incorporating spectacular shows including Ruben Meereman the Surfing Scientist, Science Competition certificate presentations, liquid nitrogen ice cream and the Brain Break Trivia Quiz, the week was celebrated in style. A welcome addition were the delicious biological cell cupcakes prepared for staff by Mrs Stead and the Science Team; yum!

I would like to thank Mrs Stead for co-ordinating our talented Science Team and the week’s festivities. A big thank you to our Lab Assistant Mrs Jenkins for all the behind the scenes work and a massive congratulations to all the members of the Science Team.

Until next year, check out the photos of Ruben (below), liquid nitrogen ice cream creation and student Brain Break Quiz winner, Emad! (Right)

Science Joke of the Month

Here is one for all you budding Physicists!

Einstein, Newton and Pascal decide to play hide and seek. Einstein is it, closes his eyes, counts to 10 then opens them.

Pascal is no where to be seen.

Newton is sitting right in front of Einstein, with a piece of chalk in his hand. He’s sitting in a box drawn on the ground, a metre to a side.

Einstein says “Newton, you’re terrible, I’ve found you!”

Newton says “No no, Einy. You’ve found one Newton per square meter. You’ve found Pascal!”
Christmas Science Teasers

The 1st student to submit/present Mr. Walford with correct answers for all questions will receive a prize. Answers next edition.

1. What is the chemical formula of snow?
2. Name the Australian territory that is only 380km from Java.
3. *Ceratopetalum gummiferum* will be showing off its bright pink/red sepals during Christmas time in the Carlingford area and beyond. What is its common name?
4. Pine needles are said to be a good source of which vitamin?
5. What is the birth sign of people born on 25 December?
6. What astronomical event is probably the basis of Christmas?
7. What happened to Darwin on Christmas eve 1974?
8. What is the title of biggest selling Christmas single, globally?
9. What Christmas item takes its name from the old French word estincelle, meaning spark?
10. Before the tradition of hanging stockings up at Christmas what did Dutch children hang by the fireside?

Merry Christmas!

From all of us in the Science Faculty, we would like to wish you a Merry Christmas and have a safe and enjoyable break. We look forward to seeing you next year!

Mr M. Walford
Head Teacher Science

Year 7 Totems

This term, Year 7 has been studying Indigenous Storytelling. As part of the unit, 7O has been researching the totems of various Aboriginal and Torres Strait Islander clans, including the Darug and Burramattagal people of our local area.

After completing the research, students chose a totem they felt fit their personality and designed a headdress for this particular animal. Below, you can see some of these fantastic headdresses for various animals.

Well done, 7O!

Ms K. Isachsen
English Teacher
Term 4 TAS

Year 9 Design and Technology

Interior Design - Redesigned Bedrooms

Our goal was to make a diorama of our dream bedroom. We were given a set amount of time to make the diorama made of materials such as metal, plastic, paper, foam board, wood, paints and glue (PVA glue).

Various forms of dioramas were created with aspects such as bathrooms included in our designs. Also numerous themes were showcased such as a Scandinavian (high ceilings), monochromatic, modern and minimalistic.

Pauline, Debbie and Ronald
Year 9

For the past term and a half the Year 9 Design and Tech class has been working on their latest project. Our aspiring designers have this time taken on the task of designing and re-designing their own bedrooms to create the bedroom of their dreams.

They have spent hours making up the image of these bedrooms through sketches and small 3-D models before moving on to make their finalized model. They have researched and applied what they have learned of interior design to these models and succeeded to make a wide variety of creative and imaginative designs.

Hana
Year 9

Our class’ combined effort and cooperation while undertaking this task has been enriching and everyone has brought their own unique ideas and tastes to the table and displayed them for the school community to see. We thoroughly enjoyed participating in this task and hope to have something similar next year.

Phoenix
Year 9

Below: Students from Year 9 Design and Technology with their dioramas
**Term 4 TAS Cont.**

**Year 9 Industrial Technology – Engineering**

**Mechanisms – Folding Stools**

Year 9 Engineering recently has worked on a project which is the folding stool. This project went over term and a half to complete and was worked on by everyone in the class as a team.

The folding stool is a sitting contraption that is designed for portable purposes. The class was split into different teams and was assigned to do different parts of the stool such as screws, rivets, legs, cross braces, threaded rod and nuts. This was done to work efficiently and finish the project quicker.

The materials were organized into packages and were given to each person so that they could file the materials and assemble the folding stool by themselves.

Each person had four legs, two cross braces, two threaded rods, eight rivets, two screws, two nuts, four washers, two tubes, eight stoppers and cloth for the seat. Two pairs of legs were joined using cross braces. These legs were joined together using a screw in the middle. A rod was run through each of the legs and the cloth was put on through the tubes. This turned out to be a convenient and helpful project. *(Picture: Right)*

**Dev, Manav and Tejas**  
**Year 9**

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**Year 11 Engineering Studies**

**Excursion to Wollongong University**

The Faculty of Engineering and Information Sciences at the University of Wollongong offer students the opportunity to participate in a hands on day experiencing laboratory sessions and activities in various other Engineering Departments.

The students participated in various activities provided by the following engineering departments: Civil, Mining, Environmental, Mechanical, Mechatronics, Electrical/Computer and Telecommunications. These activities gave the students hands on experience with the equipment and machinery used by the university engineering students when testing materials.

The Weetbix and Tim Tam mining experiment was a particular favourite due to the fact they were given the left over biscuits to eat. We were treated to a barbeque for lunch with most students going back for seconds!!

A huge thank you to Leonie Jenkins for driving us there and back (a big drive).

Ms T. Czislowski  
Relieving Head Teacher TAS

*For images of the Year 11 Engineering Studies excursion to Wollongong University, please see over the page.*
Library News

Year 7 Research

This term many students have been part of various research lessons in the library. Year 7 students have spent some lessons researching aspects indigenous culture to complement their English studies. Small groups of students used the new whiteboard tables to present their findings to the rest of the class.

Holiday eBooks

Borrow a library eBook during the holidays. App and internet instructions:

Go to app store and download eplatform by wheelers. When asked to find your library choose Cumberland High School. When you download a book you will need to login using your normal DET username and password. There are 1157 popular fiction titles for you to read 24/7. You may borrow 2 eBooks for 14 days and reserve eBooks that are not yet available for download.

Alternatively, you may access the eBooks via https://cumberland.wheelers.co/

Happy Holidays and Happy Reading from Mrs Alexander and Cumberland High School Library.

Ms K. Alexander
Teacher Librarian

Holiday Borrowing – New Books!
PDHPE and Sport Report

Swimming Carnival 2018

Our Swimming Carnival for 2018 will be held on Monday, 5th February at Ryde Aquatic Centre. Swimming carnival notes will be distributed early next year.

Year 7 Gala Day Vs James Ruse

On Tuesday, 21st November, all of our Year 7 students took part in the Annual Sports Gala Day with neighbouring James Ruse Agricultural High School. We managed to tick all the boxes - good weather, smooth organisation, and quality help from our Year 10 managers and referees. The other key factor of course was the brilliant guidance and supervision from my staff team of Miss Nicholls, Miss East, Mr Scurfield, Ms Bovill, Ms Sisala (Year 7 Advisor) and student teacher Mr Middleton, and a special mention is more than justified for our ‘Pocket Rocket’ Deputy Principal Miss Brown, who cooked sausages on the ‘barbie’ for nearly two hours!!

The competition itself consists of 10 mixed gender teams from each school competing in 5 separate sports; netball, basketball, touch football, soccer and T-ball, with each team competing in each variety of sport once. The venues for the games were divided between the two schools, so a little walking was also on the program.

It has to be said that all the Year 7 students were absolutely magic. The James Ruse staff, most of whom I have known for many years, said to me on the day that our Year 7’s were especially good this year, not only from a talent point of view, but more importantly from a sportsmanship perspective - they were very impressed with our students conduct and overall attitude!

Bonus!! - We won!! No, we annihilated them!! Final score was Cumberland 74, James Ruse 26.

Now I am the first to say that it’s not about the result, but rather about everyone having a good time, but…..it was the biggest win (by either school) in the 18 years that I’ve been here at Cumberland.

All the kids had a great day, a special day that they will remember for a long time to come. If you have a current Year 7 student in your family, please congratulate them, as we have, because they truly do deserve your recognition.

At the presentation ceremony, held at the end of a very exhausting day of competition, the following students were awarded ‘Most Valuable Player’ certificates (one for each team):

Kierre Ramos, Grady Simons, Blayke Yoo, Johnavon Manurung, Robin Kim, Patrick Raffoul, Sam Hunter, Josh Abraham, Neel Darvatkar and Andrei Samson.

Extra congratulations are due to these students for their sustained, consistent efforts throughout the day. Roll on next year!

Mr R. Pearson
Sports Organiser
Summer Grade Sport

Summer Grade Sport will be starting up again in Term 1, 2018. Students will make selections before the end of Term 4, 2017.

Sport Selections include:

**Boys**
- Touch 15’s
- Touch Opens
- Cricket Opens
- Baseball Opens
- Basketball 15’s
- Basketball Opens

**Girls**
- Netball 15’s
- Netball Opens
- Softball Opens
- Volleyball 15’s
- Volleyball Opens
- OZ-Tag Opens

**Grade Sport Transport**

When travelling away, students are required to make a single payment of $20 to cover the cost of buses and umpires/referees. A signed permission note and Code of Conduct agreement must be returned to the school before students are permitted to leave the school in order to participate in their chosen Grade Sport.

**A Reminder to all Grade Teams:**

When playing an **AWAY** game – teams catching buses are to meet their coaches in the senior seating area near the bus bay before departure. They are to have their names marked off the roll before boarding buses.

Teams who are walking to their venue are to meet their coaches in the COLA at the Sports Assembly. Their names will marked off the roll before walking to their venue.

When playing a **HOME** game – all teams are to meet their coaches in the COLA at the Sports Assembly before moving to their venue.

**A Reminder to all Students:**

During sport, all students need to make sure they stay in their designated sporting group or team with their teacher during sport afternoons until they are dismissed at 2.25pm.

Students failing to do so will be marked as truant.

**Sports Uniform**

FULL SPORTS UNIFORM is required for Wednesday sport and for ALL practical lessons in:
- PDHPE – Year 7-10
- PASS – Year 9-10 elective
- SLR – Year 11-12 elective

Failure to bring correct uniform will mean that students will not be able to participate in scheduled lesson activities. Repeated occurrences may prevent students from meeting course outcomes.

**Summer Sport Reminder**

- FULL SPORTS UNIFORM IS COMPULSORY
- Failure to meet uniform requirements may result in a grade team forfeiting
- Sports uniform items can be purchased from the uniform shop

Ms O. Nicholls
Relieving Head Teachers
PDHPE

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**STOP PRESS**

Please be advised that the Department of Education’s new LMBR accounting system no longer allows us to issue student refunds.

As an alternative we will apply the payment to the students outstanding fees or fees for the following year.

We apologise for any inconvenience and thank you for your continued patience during this transition.