



NEWSLETTER

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22 April 2016



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Useful Dates

25 Apr	PTA Meeting 7.00pm
27 Apr	Year 9, 10 & 11 Onatt Theatre
28 Apr	Junior Maths Challenge
28 Apr	French Trip Information Evening - Year 9
28 Apr	PTA Event - Joules Seconds Evening
29 Apr	Whole School Photograph
2 May	BANK HOLIDAY
6 May	Year 9 RAF Cranwell STEM Event

Dear Parents/Guardians

One of the most enjoyable events of the start of the summer term is undoubtedly the appointment of the 2016-17 Student Senior Team. My admiration and thanks goes to all those students who put themselves forward for the roles of Head, Deputy or Assistant Head Girl or Boy.

This year students in Year 12 wrote a letter of application, were interviewed by the outgoing Student Team and delivered a presentation in front of their peers and staff. Finally eight students were interviewed last Wednesday by Miss Chant (Head of Sixth Form), Katie Key (Outgoing Head Girl) and me. My congratulations go to Phoebe Dales (Head Girl), Lorna Swan (Deputy Head Girl), Harpreet Atwal (Assistant Head Boy) and Freya Hide (Assistant Head Girl). Together they will make a great team as they represent the school at public events, collaborate with students across the town, fundraise, liaise with younger students and keep staff and governors well apprised of student feeling.

My thanks go to Katie Key and her team of Phoebe Duckmanton, Katie Flaherty and Georgina Hands; the outgoing team who are busy organising the Year 13 Prom and concentrating on the final push towards the summer A Level exams.

Our next task is to appoint Prefects, Heads of House and Subject Captains, who all have a key role to play in supporting, challenging and inspiring students in Years 7-11 on their journey through the school.

Mrs J Smith
Head of School

PTA NEWS

Congratulations
to the March PTA
100 Club winner
with ticket
number 96 – Mrs
S Tomlinson

From left to right:
Phoebe Dales,
Lorna Swan,
Harpreet Atwal,
Freya Hide



KSHSSA GOLD AWARD

I have recently achieved my Gold Award after working on my Bronze and Silver. These Awards are one of the school's programmes to get pupils involved in setting targets which will help them become more individual and I really enjoyed it. The Award is optional and runs throughout Key Stage 3. One of my favourite parts of the Gold Award was when I was able to help victims of the widespread floods last Christmas by packing boxes of essential items that were donated to send to the areas that had been impacted. I have thoroughly enjoyed working my way through the Awards in my spare time and would encourage as many pupils as possible to have a go.

Lucy Freeman (9F)



Aberystwyth University Scholarship

Recently I sat an Entrance Scholarship exam for Aberystwyth University. This consisted of two papers – one on physical geography and one on human geography. Just before the Easter half term I received my results showing I had achieved 85% in the physical geography paper and 83%



in the human geography paper. Aberystwyth University have since offered me £1,000 a year scholarship and an unconditional offer, if I select them as my 'firm' choice. These results have given me a confidence boost for my exams in the summer! I am hoping to go on to study Physical Geography at university in September.

By Rosie Burns (13W)

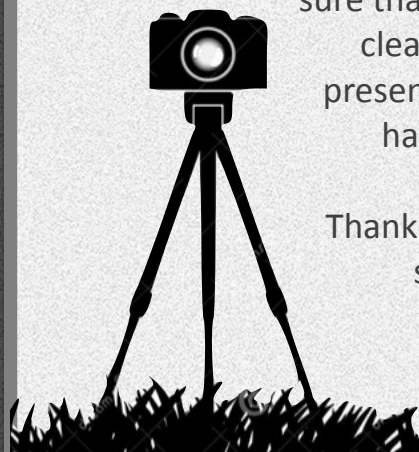
WHOLE SCHOOL PHOTOGRAPH

FRIDAY, 29 APRIL 2016

Please can all parents and students remember that the Whole School Photograph will be taken on Friday, 29 April 2016. This is a very special event, only taking place every school generation, and it is important that all students are in school on this day. Please make

sure that uniforms are clean and well presented and that hair is tidy.

Thank you for your support.



PRIFYSGOL
ABERYSTWYTH
UNIVERSITY



THE BIG BANG FAIR

On Wednesday 16th March, 45 Year 9 pupils had a break from their normal lessons to visit the NEC in Birmingham for the Big Bang Fair. This is the largest celebration of Science, Technology, Engineering and Maths (STEM) for young people in the UK. It is an award-winning combination of exciting theatre shows, interactive workshops and exhibits, as well as careers information from STEM professionals.

The Year 9 students were able to experience a huge number of different activities, from scrubbing up to operate on a plastic body (complete with real pig organs!) to problem-solving using their mathematics skills to win prizes.

We hope the students were inspired by the engineers and scientists at the Big Bang Fair and that they now understand the vast number of opportunities available in science and engineering.

Mrs L Cook
Teacher of Chemistry

Molly Fairhead (9F): *'My favourite part of the trip to the Big Bang Fair was the workshop on making video games. I found learning about all the different jobs people have when creating video games very interesting. I also enjoyed looking at some real Roman bones and finding out how the Roman warrior was killed'.*

SPOTLIGHT ON SPORT

My name is Molly Desorgher, I am in Year 11 and I have been Sailing since I was 12. I started in Toppers but this year moved into Spitfire Catamarans. My parents introduced me to Sailing! I love it because it's exciting, tactical and unique. I train throughout the year at a variety of venues. My helm and I train or race most weekends and through the holidays. I also do a lot of strength and fitness training for Sailing during the week.

I've been in the North Zone squad and Intermediate National Squad in Toppers. In this time I've been to many National Championships and the 2015 Worlds at Lake Garda, Italy. My helm and I have spent the winter training in the Spitfire and our first competition together was the RYA Youth Nationals in Pwllheli at Easter. Over the summer we'll be at a variety of events such as Eurocat in Carnac, France; the East Coast Piers Race and the Spitfire UK Nationals. We're aiming to qualify for the RYA Youth Squad this season or next and are hoping to move into the new NACRA15 boat early next year.

Molly Desorgher (11F)



Molly in action

BBC School Report Day 2016: An Overview

On the 10th of March, the Girls' News Team from KSHSSA visited Carre's Grammar School to join up with the Boys' News Team for BBC School Report Day 2016. As a combined group, we had spent a couple of previous days practising for this big national event and so were excited to use the skills we had developed.

For the first period of the morning, some of the boys were unavailable due to a Drama rehearsal, and so the remaining members of both teams began to write their own "listicles". Listicles are articles, usually found online, that are written in the form of a numbered or bullet-pointed list, therefore making them easier and faster to read – vital qualities for today's mobile phone society. We spent the hour learning all of the good qualities of a listicle (such as keeping it short and sharp, yet making sure to include just enough information to keep it informative) and then creating our own.

Towards the middle of the day, the Sleaford Standard's Editor, Andy Hubbert, gave a presentation on the day-to-day missions he has to endure as a reporter. He also answered probing questions from individual young journalists and gave them tips on how to make a good article a great one. This was a very useful experience, as it offered us the opportunity to quiz a 'real life' journalist, and understand the difficulties that come from working in the industry.

Of course, every BBC School Report Day needs a theme, and this particular one was based around "Happiness". While some articles looked at the positive side of this theme, a surprising amount of students decided to venture from the ordinary, expected jollity and started to pry into topics of mental illness, bullying, and grief. All journalists were careful to approach their topics maturely and research accurately. With a mixture of genuinely cheerful and a few slightly darker articles, the final results turned out extremely well. You can view the articles at 'www.thegntchain.wordpress.com'.

Lola Cunago (8KG), a Year 8 journalist, said, "The day was a fun experience for all and a lot was learnt. I particularly liked gaining different views on certain subjects."

The Girls' News Team look forward to BBC School Report Day 2017!



Explosive, Edible and Educational Geography

Year 7 students have been studying volcanoes and earthquakes and their homework over the break was to either create a model of a volcano, a model, or a film/animation about the structure of a volcano.

On Monday 18th April it was time to make the volcanoes erupt and cut into the cakes that the students had lovingly made. The Geography Department was amazed at the amount of work and dedication that had gone into the making of the cakes and models and would like to thank all the parents involved in supporting their daughters to take part in this project.

Well done to Alice Stevens (7W) and Natasha Walker (7W) who even made a 'light up' volcano. Well done also to Charley Tweedale (7W) and Phoebe Spicer (7W)

whose cake was beautifully made and decorated. Finally, a big well done to Lillee-Ann Thorpe (7W), whose cake showed a fantastic cross-section of a volcano and her labels explained the structure of a volcano superbly. Thank you for all your hard work and dedication in producing your models, cakes, films and in some instances animations of volcanoes and their structure.

Mrs D Collett
Subject Leader
Geography



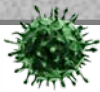
British Science and Brain Awareness Week

11th -20th March 2016 saw a 10-day celebration of all things science, technology, engineering and mathematics (STEM) not only in our school, but across the UK. PiggiFlu was just one of the activities that prompted students to reflect on the terrifying ordeals faced by people across the world.

A visit to The Big Bang Fair in Birmingham for some of our Year 9 students was also included, along with assemblies and exhibitions around school raising awareness of both science and psychology.

PiggiFlu

Our imaginary virus, spread between staff and students over the course of the week was good fun, but carried a very serious message. By the end of the week over 48% of staff and students had been infected by the imaginary virus and 162 had 'died'; this after only one infected person arrived in school on the Monday morning. Nothing could have better reminded us of how quickly some infections can spread, especially in densely populated areas and where they are easily passed on from person to person.



HIV Pandemic

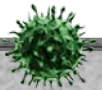
With over 25 million world deaths from the disease, HIV remains one of the most destructive epidemics in recorded history.

First identified in 1981, it has spread across the world to all countries, although over 75% of known infections remain in sub-saharan Africa. Did you know: a large outbreak (epidemic) that spreads across the world is known as a pandemic?

Total Infected Students

Year 7	97
Year 8	92
Year 9	65
Year 10	8
Year 11	18
6 th Form	50

Staff	72
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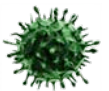
Our model was based loosely on the recent Ebola outbreak in Africa, something explained in a series of special assemblies. However, it is important to remember that this is one of the less common viral infections: across the world, HIV, measles, polio, hepatitis and influenza have still caused more deaths.

In our school, infected staff and students had a 50% chance of survival; this was very similar to the mortality rates seen in the recent Ebola outbreak. Passing the infection on was more difficult to model, but we permitted each person to infect up to only three others. Each of the three people who came into contact with an infected person had a 50% chance of actually contracting the virus.

Just as with a real outbreak, there were students who stubbornly remained uninfected. Holly in Year 9 remains the primary candidate for further investigation; she may be naturally immune to rolling odd numbers on a die! Despite being exposed to infected friends on no less than six occasions, she was never actually infected. For those who are studying A-Level Mathematics, however, you might recognise the geometric distribution in action and also appreciate that with so many tests being undertaken, we might question whether we could have expected more Hollies!

PiggiFlu Final Outcomes

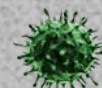
- One person infected on Monday morning.
- 359 infected by Friday breaktime.
- 630 tests performed.
- 162 dead.
- No significant difference found for those with ShamiFlu anti-viral test (Year 9 students).



Still not infected: after six tests!

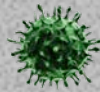
For those studying geography, biology or mathematics, it was interesting, too, to notice the variation between year groups. Students generally spend most time with peers in their year groups. This made it difficult for the infection to spread between year groups. The only exceptions being break and lunchtime (which anecdotally saw a lot of students eagerly infecting siblings).

Even when there were infections, the virus could be eliminated by chance. Tuesday lunchtime, when no less than four Year 10 students tested negative, effectively eradicated PiggiFlu from the year group before it had taken hold. This was a useful in-house demonstration of the work done by the World Health Organisations and governments across the world to prevent the spread of disease during an epidemic or pandemic. It also highlights the importance of acting quickly at the start of an outbreak to prevent an epidemic.



As in real life, the science department worked around the clock trialling various drugs and concoctions that might help to cure patients. We finally landed on a simple printed paper sticker that halved the likelihood of death from the disease. We quickly patented it as ShamiFlu® and on the Wednesday of the week administered it to all of Year 9 (sometimes in their absence); at the time they were the most 'at-risk' year group. However, it was interesting to see that by the Friday, there was no significant difference between the mortality rate of Year 9 students (46%) and the school in general (44%). In fact, some might conclude that introducing a second roll of the die for Year 9 students actually *increased* their likelihood of succumbing to the disease. Perhaps, in future, students should refuse ShamiFlu wherever it is made available. Or, we might conclude that one's own experiences and small sample sizes are poor substitutes for properly conducted scientific research.

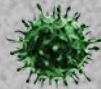
We have very few drugs and medicines that are effective against viral diseases.



ShamiFlu had a theoretical 50% effect on mortality rates; it represented a significant breakthrough for the scientific community. However, our simple model showed just one of the potential challenges inherent in testing new medicines and also of ensuring widespread uptake of them when faced with real-life barriers such as cost. Interestingly, we have medicines that are effective against only four viral infections: HIV, influenza, herpes and hepatitis. None of these are 100% effective. In society, the most effective method of controlling outbreaks is by prevention: the vaccination programmes that are in place in all developed countries are crucial, and a primary defence against major public health emergencies. As students are offered and take their vaccinations, it is useful for them to learn more about what they are and how they work.

Special thanks go to Mrs L Shelley, Mrs C Evans, Mrs J Parsons, Mrs L Cook and Mrs R Kopp for their work in organising and running the events of the week.

Mr D Spafford
Teacher of Science

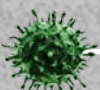


Eradication of Smallpox

Mankind has managed to eradicate some viruses through vaccination programmes. An example of this is the smallpox virus, the earliest known case of which was Pharaoh Ramses V of Egypt in approximately 1000BC, and the last case of which was diagnosed in 1977. It caused blindness and terrible sores, which left scars in survivors, and with mortality rate of 30-35% was one of the most deadly 'plagues' mankind has ever experienced.



Vaccination and prevention remains the most effective solution.





**KSHSSA PTA ARE HOSTING A JOULES CLOTHING
SECONDS EVENING**

THURSDAY APRIL 28TH 2016

6PM-8PM IN THE SCHOOL DINING ROOM

Kesteven and Sleaford High School, Jermyn Street, Sleaford. NG34 7RS

**WOMENSWEAR, MENSWEAR AND
CHILDRENSWEAR AT BARGAIN PRICES**

TICKETS £4.00 IN ADVANCE £4.50 ON THE DOOR

**Money goes towards the school 'Raise the Roof'
project**

Contact: bronwyn.fleming@kshssa.co.uk



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FREE TASTER SESSION
Tuesday 26th April 2016

Northgate Sports Hall
Millfield Terrace
Sleaford NG34 7DD

For more information contact:

Jill Pearce on 01476 570616

or e-mail: info@tkdclubs.com

