

Science

Reaseheath College

Led by Reaseheath college lecturers our year 9 students took part in practical activities that gave them a new perspective on the topics of cloning, sampling pond life, selective breeding and equine anatomy. Organised by Mr Granville every pupil in year 9 was given the opportunity to participate.



Student comments

'The Reaseheath College experience was quite enlightening and broadened my view on the well-being, structure and maintenance of animals. It has greatly aided my understanding and therefore bettered me as a ever-learning student.'

'We all enjoyed the lessons from the staff of Reaseheath. I would love to have more like this but I would prefer if the sessions were longer and in more depth. I particularly liked the sampling session as it was fun and allowed me to understand different ecosystems. Thank you very much.'

'The selective breeding lesson was a fun and interactive opportunity for us to learn about things that we usually wouldn't.'

'Everybody enjoyed it. I would love to have more lessons with Reaseheath. My favourite activity was the selective breeding with the tigers as we normally don't learn as much about animals in our usual lessons. We would love them to come again next year with different activities.'

'I found it informative and exciting to have taken part in the practical activities. I thought the selective breeding task was particularly challenging, but it really demonstrated the difficult task and decisions that zookeepers must do.'

'I enjoyed observing the insects from the pond at Reaseheath.'

'I especially enjoyed the tiger breeding talk, as I found it fun and challenging.'



'It was a brilliant opportunity to widen our knowledge of science. It's really useful to start to get familiar with what you can do in the future in regards to science.'



'It was fun and I learnt a lot. The activities were enjoyable and educational. The teachers were welcoming and approachable.'

'I have learnt that horses have a lot more than 27 bones, they have 250! I enjoyed our cauliflower experiment and wearing a white coat.'

'Activities were fun and a different experience to our normal science lessons.'

Crest



Crest is a scheme that inspires young people to think and behave like scientists and engineers. Students work independently or in groups to plan and run a project addressing a real-world STEM problem. Under the supervision of Mr Cole a group of year nine students took up the challenge to achieve their Bronze Award.

'Initially, we came to Science club only to keep warm and get out of the cold. Now we are Bronze Crest Award winners. On a Thursday lunchtime we go to BG08 and start to generate experimental ideas, once we have developed our ideas we bring in some of the equipment needed and perform our experiments. We decided for our Bronze Crest Award to see which foods stained a white cotton cloth the most and which were the hardest to remove. Our experiment was titled 'In stain in the membrane' Once we completed our investigation and completed a booklet on our work we sent it off. A few weeks later we received our Crest Award Bronze Certificate, which will look great on our CV'S. We are now looking into experiments for our silver award.'

Salters Chemistry Challenge

Accompanied by Mr Challinor, four year 8 students participated in the Salters Chemistry Challenge at Keele University. The event provided the opportunity for enthusiastic young students to spend a day in a university department and to take part in practical chemistry activities.



' We went on a one day trip to Keele University where we completed two scientific investigations. One was to crack a code and open a safe and the other was to solve a murder. Personally, I found that the Salter's festival in Keele University was eye-opening to going into a career in science. I learnt about science in the real world and also I learnt how to apply my knowledge to science. Overall, I think that going to this science festival enhanced my enjoyment of science.'

AIR PRODUCTS

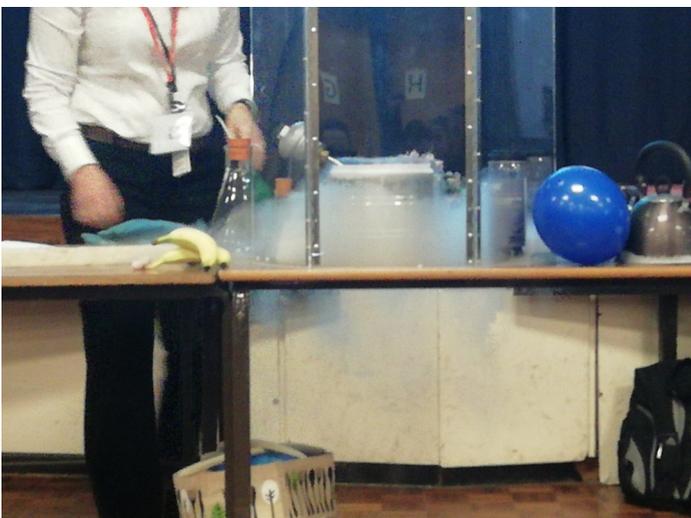
YEAR 7

Pupils in year 7 were fortunate to experience 'The Science behind Liquid Nitrogen.' Organised by Mr Granville students were entertained by interactive experiments involving liquid nitrogen.

Pupil comments

'Two scientists came in to our school to talk to us about science and perform experiments. I had the opportunity to smash a strawberry that had been frozen with liquid nitrogen. It flew everywhere! I also enjoyed when we crumbled up the frozen flower.'

'We froze a banana and hammered a nail into a piece of wood with it.'

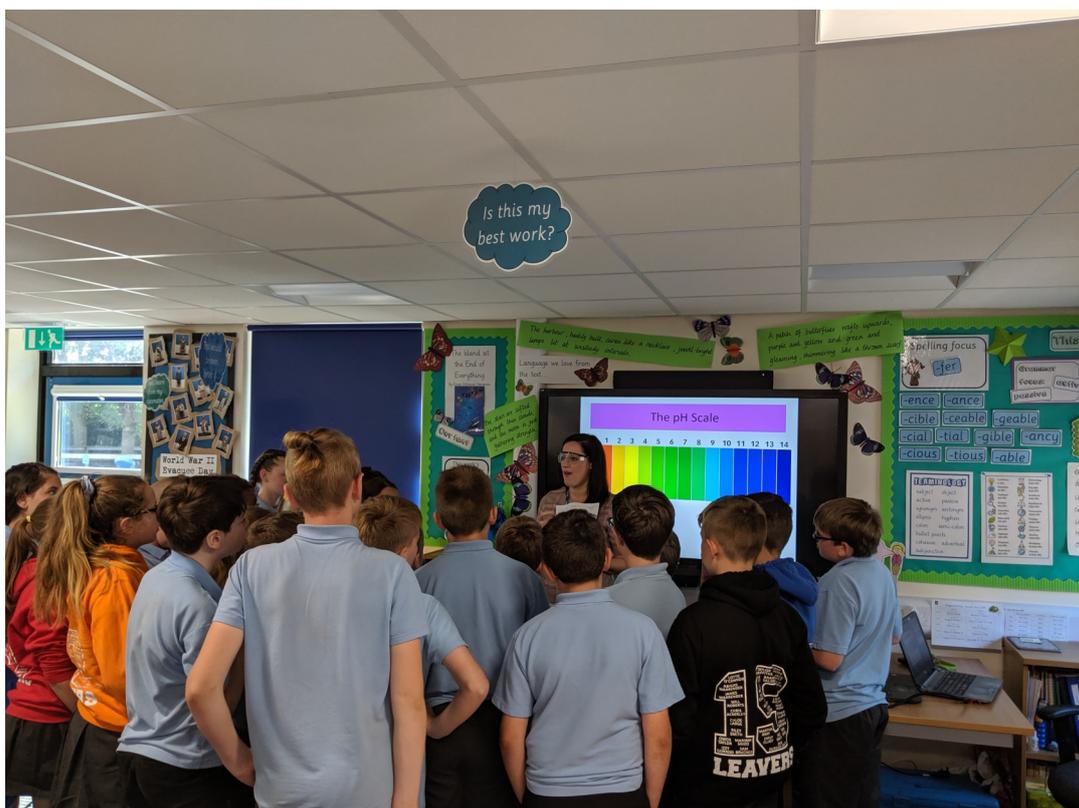


'It was interesting and I liked how it got the audience involved. They taught us science in a fun (tasty!) way. I would really enjoy them coming again, I am pretty sure everyone else would too.'

Primary Liaison

'This July members of the Brine Leas science department visited 9 local primary schools; Acton, Audlem, Bridgemere, Nantwich Primary Academy, Pear Tree, Sound and District, Stapeley Broad Lane, Weaver and Wrenbury, to deliver science taster sessions. Pupils enjoyed an interactive and practical experience investigating acids and alkalis and took away activity packs to complete over the summer in order to support their learning for the transition into key stage 3 science. Pupils showed lots of interest and skill and proved that they can work safely and think scientifically. We look forward to welcoming many of them to Brine Leas in September!'

Mr Simon Gresty – KS3 coordinator, BLS



Daresbury Laboratory

On Thursday 4th July our year 12 Physicists visited Daresbury Laboratory. The day started with an "Introduction to Nuclear Physics" given by Dr Rachel Montgomery from the University of Glasgow. Students took part in the University of York Binding Blocks Workshop, where pupils helped to build an eight metre long 3D nuclear chart of all isotopes made completely out of Lego. The University of Liverpool brought their Gamma-Ray detection Workshop, where students identified the spectra from several "unknown" source of gamma radiation, and calculated the half-thickness of the gamma rays from practical data they had gathered. The STFC Simulation of Detector Systems Workshop used a computer program to simulate realistic radioactive sources and record the energy deposited in an NaI scintillator and Germanium detector. Finally, there was a tour of the site and a talk with current research students about possible career paths.

Students enjoyed seeing demonstrations and taking part in activities, presented by academics at the forefront of current research, that they could not experience in school. The whole environment of the science campus was exciting and inspiring.

Year 12 Physicists

