



Science Technology Engineering Art Math

Welcome to ATA's STEAM Newsround! This week in STEAM

The first round of STEAM project rotations is now complete and STEAMmies have rotated to their new projects as follows:



2018-2019

Year Group	Project Rotation	Teacher	Room
7	Pinhole Camera	Miss Peterson & Miss Ohene-Odame	Art room E110
8	Robotic Programming	Mr Haddleton	E310
9	Mega Maths	Ms Niklekaj	E301

Each project rotation will be for 4 weeks and you will then switch.

Please see Ms Khan in Science to collect your STEAM lunch passes!

Meanwhile, the latest news in STEAM

Robotic Programming Club – with Mr Haddleton - Year 7 STEAMmies completed their project rotation with a difficult robot control task with all 3 robots in their final session with Mr Haddleton! Everyone was keen to practice with all of the robots. Travis, the flying robot proved very popular again with many teams negotiating the aerial obstacle course and trying to land in the correct location - very difficult! Cozmo had learned some new moves and games



since last week and the STEAMmies were keen to beat him at the new games. Some teams did, but not all! Great fun had with Robotic Programming Club! The Year 8 STEAMmies then started their rotation with Mr Haddleton and immediately detected the presence of a new, unfamiliar robot in the club. Mr Haddleton explained that they were going meet Cozmo for the first time! The students watched a short video depicting Cozmo and demonstrating his amazing artificial intelligence (AI)! The STEAMmies were keen to see Cozmo in action and very keen to get to know him and his "brain". Very soon they were learning all about Cozmo and trying to compete with him to win his games. They did win some, but Cozmo likes to win too – A LOT!. Next week the competition starts to see who can become master over all of the club robots and win the ultimate prize.



Science Technology Engineering Art Math

Mega Maths Club – with Ms Niklekaj - This final Year 8 session was the ‘cherry on the cake’ for our young STEAM engineers as they got to design their very own rollercoaster. Working in groups, the challenge was on to see who would design the highest, fastest, most exciting rollercoaster. The price and age restriction was taken into account by each group and amazing designs created. The work ethic and enthusiasm demonstrated by the STEAMmies was contagious and it was great to see so many budding mathematicians/engineers. The Year 9 STEAMmies then commenced their rotation with Ms Niklekaj and looked at how to fit a given number of adverts into a given area/page of a magazine (editing a magazine). They recalled the mathematic skills required and it was really good to see them work in groups and to listen to their problem solving discussions.

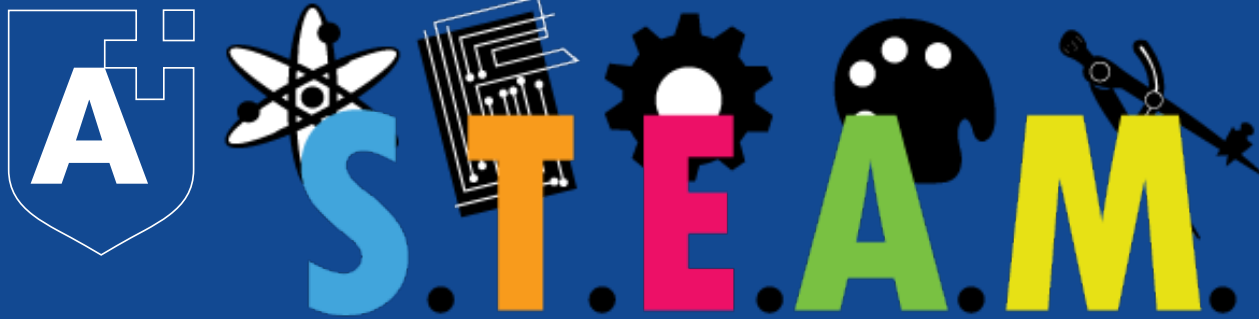


Pinhole Camera Club – with Miss Peterson and Miss Ohene-Odame - The STEAMmies took and developed their first photographs in this final session with Miss Peterson and Miss Ohene-Odame. First, in our dark room equipped with a safelight that wouldn't affect the photographs, they put light sensitive photo paper into their pinhole cameras. Then, they took the cameras outside and took photographs of everything from trees to rocks to the school building. Most of their exposures were from 10 to 15 seconds and they changed this based

on how sunny or shady their photo location was. Afterwards, they came back to the darkroom and developed their photographs in a series of chemical baths before hanging their photos on a line to dry. Take a look at some of the amazing photos created. Also, the Year 7 STEAMmies then commenced this rotation and discussed the varying approaches to photography and the differences in process between taking a photograph with a digital camera and a film one. They experimented with light sensitive paper to begin to confirm their initial understandings about the significance of light in producing an image with traditional (film) photography.



STEAM Academia – with Ms Khan, Mr Moloney & Mr Mensah – STEAM Academia was joined by a passionate physicist, Goronwy Towy, who is doing his PhD at Imperial College London on laser research! He gave a down to earth account of a day in the life of a PhD student, showing that it's not just for 'geniuses', but for anyone who enjoys science, and has something they are really passionate about. His work focuses on making some laser technology much more affordable, which will support further research in industries! Another special guest was Wilson Li from GSK, a multinational pharmaceutical company. Wilson described his work with viruses in 'cell therapy' to retrain white blood cells to attack cancer cells, and how the outbreak



Science Technology Engineering Art Math

of the SARS virus had inspired him to explore this field of research. Wilson outlined the diverse careers available in GSK, and the various routes to get there. The STEAM Academics discussed the benefits of an apprenticeship over going to university, and concluded that they should choose the option that best suits them. They also had an introduction into the industry itself, which linked to understanding how drug trials are run, which links to their GCSE specification.



6th Form STEAM Ambassadors Programme – with Mr Sellars – Our 6th form STEAM Ambassadors spent time in the dark room with the Miss Peterson, who had been taking pictures with pin-hole cameras that her STEAM club had made. They saw how the chemicals developed the film – in a now rather slow (but still exciting), archaic way! This week’s job roles in STEAM careers were ICT Support Technician, Senior Consultant Project Engineer,

data and Software Engineering Lead. The 6th Form STEAM Ambassadors had investigated these roles in morning form, as well as found out what it is like to work at CERN.

Year 7 STEAM Enrichment Programme – Maths Science master class event on Tuesday, 9th October 2018, P7-10 (2-4:30pm) in the Auditorium – All of Year 7 were off timetable for a Maths Science master class with Ms Khan, Mr Cook, Ms Ohene-Odame, Ms Niklekej and Mr Wandi. With mega house points to be won, the Year 7 students solved a series of mathematical and scientific problems to ultimately design and build a secure bridge.



Absolutely STEAM-azing, STEAMmies! You’re all STEAM-tastic!

**Ms Khan
STEAM Coordinator
Ashcroft Technology Academy**

