

WHAT IS STEM

STEM Education, at its core, simply means educating students in four specific disciplines, namely, Science, Technology, Engineering, and Mathematics (collectively shortened as STEM). Instead of training students in any one of these subjects, STEM develops students understanding of all four subjects together so as to better equip students to have a career and consider real-world applications.

WHAT IS ENTHUSE

ENTHUSE Partnerships empower schools and colleges to share practice and work collaboratively, addressing underachievement in STEM subjects, inspiring excellence in the STEM curriculum and raising aspirations for STEM careers and further study. Wexham has been working collaboratively within a partnership of 6 schools offering bespoke training for staff and curriculum enhancement opportunities for students.

General Electric GirlsGetSet Event Year 9

In collaboration with Wexham Business partner General Electric, Year 9 students have been participating in a series of workshops and activities with support from mentors.

During their recent session, students learned about the '7 wastes' and how it related to their morning routine. They took this forward carrying out a brainstorming activity to come up with ideas on what on how they could design to

help remove one or more of those wastes.

Finally, they collaboratively agreed on one invention to take forward into this next session where they will be building a prototype of their chosen invention.

The main focus of the next mentoring session is to build a prototype and this will be followed up with mentor sessions to progress their Bronze Award for Cadets in Industry.



STEM Learning Facilitator Course

Inderjit Singh attended Part 1 of this facilitator course with the aim of raising the profile of Wexham as a centre of excellence as a STEM and CPD hub both within enrichment and STEM Teaching and Learning.



Women in Industry Talk Year 8

Year 8 Students participated in this Women in Industry workshop.

The workshop was run by Mehreen Baig, TV presenter, podcast host, writer, activist and ex-teacher!

Students were enthralled with how she navigated the working world as a woman.



Mehreen talked about the challenges of being in the media and education and gave her honest advice.

She also explored the current landscape for women in technology, the barriers faced by women entering technology roles and how we can encourage women into this industry.



General Electric will be releasing their Annual report 2022

Rosalind Munro General Electric Global Growth Consultant has provided us with an extract:-

"One example of how GE likes to build sustainable schools partnerships is our relationship with Wexham School in Slough.

We first met when they agreed to be the lead ENTHUSE school in that hub.

Inderjit Singh, Lead Practitioner Science, has worked closely with GE STEM Inspirers to identify opportunities that would most benefit students.

Consequently, GE leaders have given 'TED-style' careers talks during assemblies

and students have successfully participated in GirlsGetSET.

In all, 18 volunteers worked with Wexham in 2021, holding 936 career conversations with students and teachers."

At least 30 students have already applied for GE's virtual work experience in 2022.

Inderjit Singh said: "GE's close collaboration and mentoring has enabled students to flourish and open up a world of possibilities."



This event was organised by Wexham for Khalsa Primary and Beechwood Schools. Wexham will be attending on the 7th April! It was a mixture of STEM activities, workshops and shows which included:- Destination Space, Schools Planetarium Show, Explore Exhibits, and the Space Session The event was attended by over 140 Students.



'Thank you Inderjit for this fantastic opportunity. The Beechwood students had a great day' Petya Ilkova
Director of Careers and STEM Lead Beechwood

'This was a fantastic day out for our students, the only problem is they want to go again!'
Ranjeet Jabble Science Lead at Khalsa Primary



General Electric Mentors Event Year 9

In the latest of the Girls Get Set events for our Year 9s, the girls were getting 'hands on' and creative on Tuesday morning - designing, planning, discussing and then finally putting their invention together in their efforts to achieve the Industrial Cadets Bronze Award.

One of the more vital skills required on the day was teamwork, which they certainly showed a huge amount of. All



students had a role to play, and they were excellent at making group decisions and delegating tasks before coming together to combine their efforts.

"I was incredibly proud of the level of maturity they showed ... and they now look set to complete their work and present it in the final session in March. I wish them all the best." said Sarvinder Phalora Lead

General Electric STEM Virtual Work Experience Week Year 10

Firstly congratulations to our Year 10 students who won a national competition (out of tens of thousands of applicants!) to be able to participate in the VWEX, Virtual Work Experience Week.



Their work included exposure as industry cadets, designing blue tooth apps for home applications, simplifying routines and connecting to home appliances.

They presented the apps to leading industrialists. They engaged in independent and group work and applied themselves to timescale.

Aside from opening their mindset to STEM vocations they also readied themselves to

life after Wexham augmenting their communication skills in CV writing and IT. An amazing effort!



In addition from Year 11 a special mention has to go out to Divyansh Sharma who was placed at Kainos (a Technology firm) carrying out a coding work experience week during the February half term. Divyansh Sharma said: *"I had a wonderful time at Kainos.*

"We learnt about coding and cyber security and they also gave me the opportunity to ask anything related to my career.

It was very useful for me and I would highly recommend this!"



Primary Outreach Partnership Meeting

This was a preliminary meeting between primary school teachers and Wexham, seeking effective and sustainable STEM transitions for their Year 5 & 6 KS2 students into Year 7 KS3.

A number of themes were explored inter alia comparison of curriculum outcomes, avoiding subject knowledge overload and emphasising key skills including maths, graphing and interpreting data. Part II to follow...

Primary Outreach to train non science specialists

Paul Whittle of the Science Department attended Khalsa Primary school to induct 12 teachers in microscopy particularly focusing on the use of microscopes.

He used a mixture of pre prepared slides and slides made up during the session. The task for each group was to take a clear, sharp image of their chosen sample, at various magnifications, using the microscope and smartphones.

Ultimately, all groups succeeded in doing this, and were all were pleased with their progress! They will also be using this as a template for the induction for new members of staff.

STEM CLUBS Years 7,8 & 9

STEM club started on an interesting note with Zombie Apocalypse.

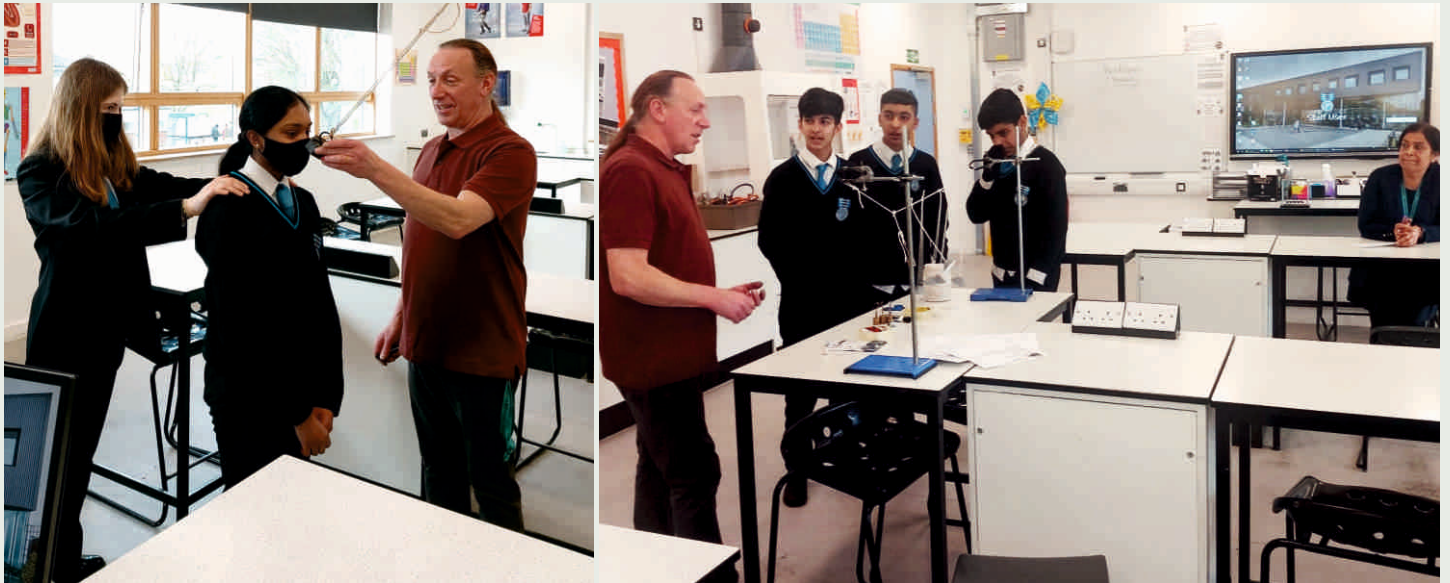
Pupils had to survive an environment without fresh water, food, electricity, and no gadgets including mobile phones (HELP!!!) with the ever impending threat of Zombies turning up to STEM Club!

We have now moved on to scientific enquiry

and STEM vocations proving the law of conservation of energy.

In addition, pupils set up 'Barton's pendulum and demonstrated a good application of their practical skills.

Come and join us and give it a go with the next themes being 'Desert Island' and 'Witchcraft and Wizardry'



General Electric STEM Virtual Work Experience Week Year 12

This experience also extended to Y12 students and their feedback just shows what Wexham Students are capable of!

"I learnt many skills and gained educational information from this experience.

I learnt skills like how to write a CV and we created our CV and now I know what to include.

I also learnt how to communicate and work in a team as we were put into separate groups, where I worked with people I did not know.

I learned about time management because we were supposed to finish a project in 5 days. This was a good experience for me because now I am a more confident on what to expect in a work environment."

Ahamed Aathiq

"I enjoyed the work experience 89% of the time the reason why it's not a 100% is because I am not the kind of person who enjoys lectures or anything school related but as long as I benefit from it I can live through it.

So, this experience gave me the extra confidence boost to sit and learn from the GE work experience Programme.

Some good things about the GE work experience is that I was exposed to ways of making my life better especially in the routine aspect of my life. It also exposed me to the concept of teamwork and I learnt how to write a C.V.

However, I found sitting in

front of a screen for 3+ hours challenging."

John Dienne

This experience gave me an extra confidence boost.

"I found the whole work experience very useful in helping me by giving me skills that will help me in the future.

This experience gave the skills to make a professional CV that I'm able to use, the ability to optimise processes and to be able to successfully work in a team.

Salmaan Ali

SPECIFIC DATES IN THE CALENDAR

Term 4

- 16.03.22 STEM Measurements Assembly National Physical Laboratory Year 7,8,9
- 05.04.22 TED Talk Lawyers & Technology Year 12
- 07.04.22 Winchester Science Centre Trip Year 7

Term 5

- 03.05.22 TED Talk Media Zoo TV Year 8
- 19.05.22 Science Museum STEM workshops Year 9
- 20.05.22 National Physical Laboratory STEM workshops Year 10

Term 6

- 20.06.22 National Physical Laboratory 'Water Rockets' Challenge Year 7
- 23.06.22 Big Bang NEC Birmingham STEM workshops & Activities Year 8
- 23.06.22 Girls Get Set Final Event Year 9
- 30.06.22 Careers Fair STEM foci Year 7, 8, 9, 10 & 12
- 04-08.07.22 Virtual Work Experience Week Year 10
- 04-08..07.22 Virtual Work Experience Week National Physical Laboratory Year 8/9/12

STEM PROJECT II

MAR-JUN 2022 : Hypothesis Can we meet the energy requirements of country without relying on fossil fuels? Students will initially model this by seeking to cut out the use of fossil fuels within their own school. They will also construct a scheme to save energy around their school environment. Explore whether this could be expanded on a country wide basis

STEM CLUB

- 28.02.22-08.04.22 'SCIENTIFIC ENQUIRY & STEM VOCATIONS'
- 25.04.22-27.05.22 'DESERT ISLAND' STEM
- 06.06.22-22.07.22 'WITCHCRAFT & WIZARDRY'

If an of these events are of interest to you or you would like suggest your own please contact Mr Singh or Dr Rihal via, post@wexham.slough.sch.uk in the Science Department. Happy STEM!