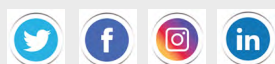# technocamps

Newsbyte

Summer 2020

Welcome

Welcome to the Summer edition of Newsbyte. Like everyone else we have had a crazy couple of months as the team gets used to the new 'normal' to limit the disruption caused by Covid-19.

In this edition you can read all about some of the things we have done to keep our motivation during lockdown, as well as finding out how we plan to proceed over the next few months. We have some exciting new initiatives to look forward to.

Technocamps Team

Summer of STEM

We have been completely overwhelmed by the response to our first-ever virtual Summer of STEM. Hundreds of pupils from all around the country have signed up to join in the fun.

Covid-19 has stopped us from holding our Summer Schools in our Hubs across Wales. Creative as usual, the team has grasped the opportunity. We have decided to switch to an online version instead. We are looking forward to the challenge of keeping everyone inspired and engaged for 15 days in August. All in the name of Science and Technology of course!

In many ways, going online has proved to be beneficial. It now means that pupils who live in rural locations or long distances from our University hosts can still sign up and attend the sessions. There has been a real sense of collaboration between members of our Delivery Team. They will come together virtually from different parts of Wales to present and support each day's activities.

Technocamps Summer of STEM is completely FREE and is open to all pupils between the ages of 9 and 16. Like everyone else, our Delivery Officers haven't been out for a bit. We have challenged them to come up with sillier but brilliant ideas – so it's sure to be a lot of fun!

We'll be posting lots of updates on our social channels throughout August. Stay tuned @Technocamps to find out more about what we get up to!

https://bit.ly/TCSoSNow

Delivery Officer's Diary

Despite it being a difficult and uncertain time for us all, the lockdown has presented a positive opportunity for me to reflect on my professional skillset. My background in Marine Biology means that my computer science skills have been less so compared to the other delivery officers, but in this unexpected break from school visits I've been able to work on improving these skills.

I've completed a course on primary teaching pedagogies, which gave me a fantastic insight into the various teaching methods and lesson structures that can be used to develop learners programming skills. I'm using this knowledge to create a toolbox of activities and resources that can be used to deliver Technocamps workshops in primary schools. I'm looking forward to build upon my new-found knowledge with the secondary version of the course.

As well as upskilling, I've been working on virtual activity packs, and in recent weeks I've been preparing materials for returning to school classrooms. One workshop I'm particularly excited about is themed on Health and Wellbeing, in which leaners follow a step-by-step tutorial to make their own workout timers (so you can be like Joe Wicks too!).

On that note, outside Technocamps, I've been keeping myself physically fit by joining virtual workout classes. I've spent a lot of time on-line with family and friends, doing quizzes and playing bingo!

I'm really pleased that I've been able to get back into reading, something that I always wanted to - but never seemed to find the time to do before!

Mollie

When we launched our Activity Packs back in April, no-one could have predicted how successful they would be. They have certainly helped to keep pupils occupied and engaged during lockdown (as well as keeping parents sane!). **Over 50 schools have registered**. Hundreds of pupils across Wales are working through packs to earn points towards our Leader Board.

We have recently added new resources, including Pixel Art and Scratch Solar System, suitable for primary-aged children. We have also teamed up with Cardiff University's Cyber Soc to produce a really exciting pack focused on Cyber Security.

To give everyone a chance to catch up with all our new materials, we have decided to keep the competition **open until October half-term.** We will announce the winning schools and top-performing pupils at the start of November 2020.

All our Activity Packs are free to download and are available in both Welsh and English on our website. Each resource has an accompanying video, and pupils are able to work independently through the packs. We also have a live chat available on our website, with direct access to one of our Delivery Officers, for anyone who gets stuck or needs some help.

www.technocamps.com/en/activity-packs

Proud to be Finalists in the first-ever Wales STEM Awards

Back in March, the team found out that Technocamps was a finalist in the first-ever Wales STEM Awards. We were among a prestigious group of programmes nominated in the category 'STEM Educational Programme of the Year'. We were looking forward to the ceremony. We thought it would be a perfect opportunity to share our story and to show off all the amazing work that we do.
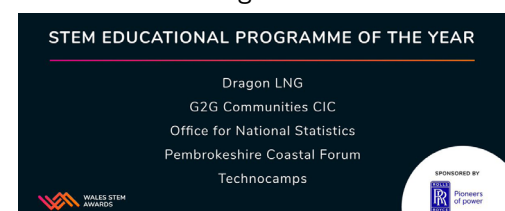
The judges looked for 'evidence of an initiative which either addresses the STEM diversity gap, the skills shortage or seeks to inspire and raise the aspirations of the next generation.' We are confident that Technocamps meets all three of the individual criteria. Our status as a finalist is an acknowledgment of the incredible success we have achieved.

As with most other things in recent months, the organisers postponed the Ceremony. Our excitement was somewhat dulled and had to be put on hold.

We have now heard that the Ceremony will take place in November, and that our nomination and status will be carried over until then.

After a very difficult few months, we cannot wait for the Ceremony, and the opportunity to celebrate all things STEM in Wales.

STEM EDUCATIONAL PROGRAMME OF THE YEAR

Dragon LNG
G2G Communities CIC
Office for National Statistics
Pembrokeshire Coastal Forum
Technocamps

WALES STEM AWARDS

SPONSORED BY
Pioneers of power

Teacher's View

Victoria Price, from Greenhill School in Tenby, tells us all about how Technocamps Virtual Workshops were a hit with her pupils.

"As a teacher of ICT and Computer Science, when we went into lockdown and students moved onto online learning, I felt that as a subject we would be pretty ok with the delivery. We were already using Google Classroom with all of the pupils, so they were familiar with the platform. Setting work would be similar to the way we set it in class.

How wrong was I?

If nothing else, this crisis has reminded me of how important teachers and support staff are to pupils, their learning, and their wellbeing. The first challenge was how to engage pupils in their learning. We tried various methods. Virtual bitmoji classrooms, video tutorials and instructions, quizzes. We even had a go at 'live' lessons.

While we were pretty effective, I felt there were still improvements to be made, so I signed up to a course on FutureLearn called 'Improving Computing Classroom Practice Through Action Research.' I wanted to do some action research on the impact that live virtual lessons would have on engagement of pupils.

Like magic, at the same time Technocamps were offering virtual workshops, and I jumped at the chance to take part. Having worked with them on a number 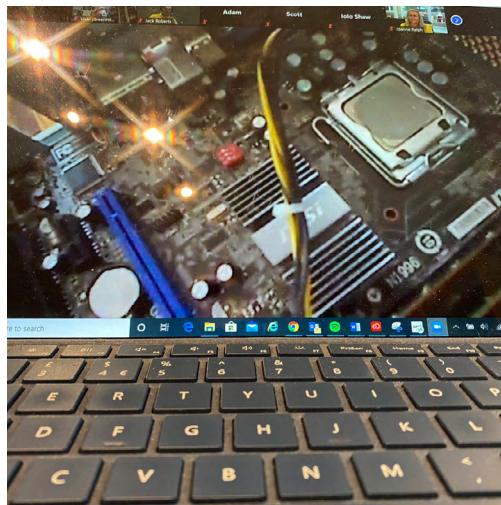of projects, I knew our pupils, who were new to Computer Science, would really benefit from the experience and dynamism of the team. After meeting up online with Stewart Powell (Operations Manager) and Joanne Ralph (Schools Liaison Officer) a plan was put in place to deliver the virtual workshops.

Feedback from the group was very positive. "Interactive." "Full of useful information." "Interesting." "Most interactive session I've done." were just a few of the positive comments. We went from 80% engagement to 100% engagement at the start of the virtual workshops.

All of the team were fantastic and a huge shout out to Luke and Jack who inspired our pupils every week and taught me a thing or two as well.

Diolch yn fawr iawn."

Victoria Price

Stay Safe, Stay Learning

Supporting the Welsh Government during Lockdown

When the Welsh Government announced the cancellation of summer examinations, it left pupils across the country wondering what would happen next. Most 'A' Level learners 'completed' their studies, combining online teaching with independent study. With no examinations to sit, teachers have be come assessors, and a range of different performance factors will decide their pupils' grades.

With no control over this process, it is inevitable that Year 13 pupils are apprehensive about their futures. Welsh Government (WG) closed schools but behind the scenes they were taking s teps to ease the concerns of both pupils and learners. #StaySafeStayLearning is a Campaign to keep pupils motivated and focused, especially after the Covid 19 pandemic cut short the academic year.

Technocamps has played an important role in helping WG to bridge the gap between Sixth Form study and Higher Education.

Our team immediately sprang into action, redesigning some of our key online resources to make them suitable for this age group. Our talented DA team adapted induction materials to make them accessible online for independent study. We also conducted online intro ductory seminars on Boolean Algebra and Low-level Coding through Little Man Computer.

Throughout the crisis, the message from the Education Minister has been clear. Our children's education should not be negatively affected by the impact of Covid-19. Technocamps is proud to have played a part in helping to keep students learning throughout the crisis.

Inspiring Women, Inspiring Girls

The WiST Network Goes Virtual

Over the last few years at Technocamps, we have built up a strong network of women working in the field of Science and Technology. WiST (Women in Science and Technology) started simply as a chance for like-minded women to get together. We can learn from each other's experiences in a friendly and supportive environment. Since our first meet up in November 2019, we have tried to hold events regularly and in different parts of Wales. Our objective is to expand the network as widely as possible.

Part of our remit is to encourage more girls to take up STEM subjects at 'A' Level. One of the best ways to inspire young women is to show them a pathway to which they can aspire. This can help to support them on their own journey into the sector. We have created the WiST Network to encourage women from business and education working in STEM to get on board with our cause and the work we do in schools.

It is particularly important for young women to hear that STEM is not just for boys. This message already permeates throughout our programme. It is equally as important for girls to see themselves reflected in the women who have already carved out successful careers in the fields of Science and Technology.

Many of our WiST members have taken the opportunity to work with us in a closer context. From our meetings, we have recruited several Technocamps role-models. There are various things that our role models may find themselves doing. For example, they may deliver career-talks, help with workshops, or even act as judges/mentors for our annual competitions.
Any woman working in STEM in Wales can apply to become a role model. For informal enquiries, contact:
info@technocamps.com
in the first instance.
Like many other events planned for Spring 2020, we had to postpone our last 'physical' WiST meeting. It was due to take place after our IWD Celebration and we were looking forward to introducing several new recruits to the group.

We have already heard some amazing stories from women working in STEM. We are trying to keep the momentum going by taking the network online while the COVID-19 crisis continues.

Our first meeting took place last month. Nic Ponsford and Cat Wildman spoke about their personal journeys, and why they set up the Gender Equality Collective to combat prejudice in the workplace.

Our next meet up takes place on October 2nd 2020 where Harriet Stone from the NHS will talk about 'Dealing in Digital Change'. Why not come along (virtually, of course) and join us?

https://bit.ly/WiSTDigitalChange

DEALING IN DIGITAL CHANGE | **DELIO Â NEWID DIGIDOL**

Gearing Up for the New 'Normal'

No one quite knows how things will work out once the schools go back in September. Of course, we are hoping to be able to resume our face-to-face workshops as soon as we get the green light to do so. We completely understand that there may be some reluctance from schools to let visitors in until we are fully out of the crisis.

Here at Technocamps, we are preparing for a new kind of 'normal'. We are already putting systems in place ready for the new term. We expect to adopt a 'blended learning' approach. Some schools could accommodate physical visits from the team. Others will prefer to maintain an online approach with classroom-based, follow-up work.

In anticipation, we have been piloting some 'virtual' workshops with some schools. We are grateful to Greenhill School in Tenby and Ysgol Tryfan in Bangor for volunteering to be 'guinea pigs' and help us work through our systems.

We are able to conduct online sessions beamed into classrooms, using applications such as Zoom or Microsoft Teams. Activity Packs and Workbooks provide opportunities for extension work and further learning.

As with any pilot scheme, we've had a few hiccups along the way. The trials have allowed us to establish the process for future sessions and we are booking in schools for the coming academic year.

We are also developing a Health and Safety protocol for when we are able to visit in person. This will include measures such as: regular temperature checks for staff, the use of masks and hand sanitiser, and the regular cleaning of equipment. We will monitor these closely and follow all Government recommendations.

We will, of course, observe any social distancing measures. Members of the team will familiarise themselves with school rules and adhere to any guidance given. We are aware that rules will vary from building to building and from school to school. We will also adjust our own risk assessment according to what is appropriate in each context.

We are hopeful that we are soon on the other side of the crisis, but in the meantime, we will do everything we can to deliver safely. We are looking forward to getting back to a new 'normal'.

Contact us for more info about the sessions

info@technocamps.com

Training Teachers for Successful Outcomes

It's not only children who learn from our fantastic team.

For many years, Technocamps has delivered training and CPD to teachers across Wales. We can now celebrate over 100 graduates from our Level 3 Certificate in Computing for Teachers. This qualification upskills teachers in schools to support their classroom activity. We provide opportunities to attend workshops and seminars. We also encourage our teachers to share good practice at conferences and specialist talks.

This year has been a learning curve for everyone. When lockdown started, our delivery team switched to an online learning model to complete the course. This year's cohort were able to continue their studies. With some adaptations, they have completed the modules to enable them to earn their qualification at the end of the academic year.

We were also inspired to become more creative and to try out some new initiatives. We are really delighted with the responses we have had from participants.

In the second half of the Summer Term, we held micro CPD sessions aimed at primary school teachers. The Sessions focused on the basics of Scratch programming, computational thinking, and algorithms. We designed these specifically for teachers with limited knowledge and understanding of computer science.

"My Scratch skills were non-existent before Technocamps and today I built a maze - this is all because the training is comprehensive and well thought out." Year 4 Teacher, Ysgol Derwen.
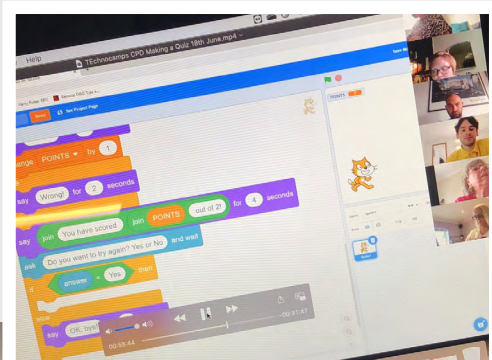
We also teamed up with IT Teaching Consultant, Adam Speight, launching our first-ever online TeachMeet. Adam hosted the event which include a keynote from Matthew Hewlett, Head of Computer Science, Our Lady's School in Abingdon, Oxfordshire. There were also 8 other short talks from teachers, from all over the UK, focusing on different relevant topics.

The emphasis was on sharing of good practice. Participants were quick to point out some of the issues facing teachers:

"We are all very good at preparing traditional lessons but virtual ones require new tools as well as the development of best practices."

We are hoping to continue with these initiatives into the new school year. Stay tuned to our social channels @Technocamps for details. We are also now recruiting for the next VTCT course starting in the Autumn Term. Please note that we have decided to run the primary VTCT only for 2020/21. For further details:

http://bit.ly/VTCT2020

It's 'Business as Usual' on our Degree Apprenticeship Programme

It has been a challenging time for our Degree Apprenticeship cohort. As usual, our brilliant team has done an outstanding job in coping with the crisis. We were especially keen to ensure that learners weren't negatively affected. We are conscious that there may have been extra stresses brought on by the crisis. Learners may be coping with family responsibilities, furloughing, shielding, and self-isolating. Adapting to change is never easy. With such a monumental shift in circumstances, our apprentices may have chosen to move their focus away from learning.

For us, it seems, it has been 'business as usual' – albeit in a different form!

The academic year finished for most students in May. For our DA students the term continued as 'normal'. Lectures moved onto the Zoom platform and we conducted lab sessions virtually, supervised by our Institute of Coding Fellows and University teaching staff.

The biggest challenge was adjusting to digital teaching. In the first instance, students had cameras and microphones switched off. The team had to encourage them to engage as they would in a normal lecture. Lecturers also had to learn to adjust their delivery styles to make sessions livelier and more interactive.

Now that everyone has become used to this blended approach, we look forward to the new term. Feedback has been positive, and we continue to take on board any suggestions made by our apprentices. We would love to be able to return to teaching in person as soon as possible but we have to consider the needs of our learners and their employers. So, we have decided to continue with our virtual approach until January 2021.

Gareth Griffiths who works at the DVLA in Swansea is one of this year's final year students:

"There was so much support from all the lecturers, feedback was quick and helpful. The lecturers were dedicated and passionate which really showed in their teaching. The University adapted well to the COVID lockdown which was great considering we were in the last part of our year."

We are still recruiting for the new academic year. If you would like to take advantage of our fully-funded 'earn and learn' Degree Apprenticeship Programme, you can get in touch with our Business Engagement Officer Maria Moller.

m.moller@swansea.ac.uk

institute of
CODING
in wales

Prifysgol Abertawe Swansea University

CARDIFF UNIVERSITY
PRIFYSGOL CAERDYDD

PRIFYSGOL BANGOR UNIVERSITY

Cardiff Metropolitan University | Prifysgol Metropolitan Caerdydd

Prifysgol Cymru Y Drindod Dewi Sant University of Wales Trinity Saint David

PRIFYSGOL ABERYSTWYTH UNIVERSITY

PRIFYSGOL Glyndŵr Wrecsam | Wrexham Glyndŵr UNIVERSITY

University of South Wales Prifysgol De Cymru