

Xplore!

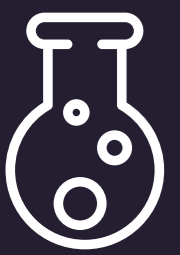


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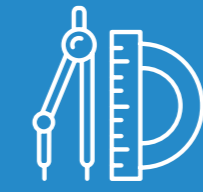
Science Discovery Centre



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Foreword



Our goal is to inspire the next generation of STEM superstars; but I too have been left in awe of the amazing team at Xplore! Science Discovery Centre in these last two years.

A rebrand and relocation is challenging for any organisation, and how my colleagues reacted throughout the pandemic has been nothing short of incredible.

They are a friendly, genuine and helpful bunch of people who represent different parts of the community, and I'm proud of their efforts and achievements.

Even when the centre closed during lockdowns, the team worked tirelessly behind the scenes to engage the local community with resource packs supporting home schooling as well as online sessions keeping youngsters – and adults – connected to STEM.

As a relatively small science discovery centre, we punch well above our weight, especially in outreach and community engagement. The dedication internally is unrivalled.

I'm also proud of our partnerships, which have played a crucial role in Xplore! not only surviving, but thriving and looking forward to the future with optimism and excitement.

Thanks to our supporters

My thanks in particular goes to Wrexham Glyndŵr University, our parent company, without whom, our goal to inspire the next generation of STEM superstars would not be possible.

Thanks also go out to external funding partners that have supported our work over the past two years, UKRI and Wellcome, and Welsh Government.

Looking ahead

The world needs engineers and scientists to solve many of the issues that exist now as well as those that will arise in the future.

Encouraging youngsters to consider STEM-related careers is vital, and science discovery centres are part of the solution.

We pride ourselves on offering an interactive and educational experience that is fully inclusive, and we are striving to achieve our mission of communicating science in exciting and innovative ways to all people, regardless of age, ability or background.

Thanks to our team and partnerships, the future work of scientists and engineers will carry the DNA of Xplore!.

Scot Owen // Centre Manager



Science Discovery Centre
Gwyddoniaeth



Heart of the community project

As a charity, we rely on a number of revenue streams including grant funding. For this reason, we were thrilled our applications were successful to The Inspiring Science Fund, a partnership between UK Research and Innovation (UKRI) and Wellcome, and the Welsh Government's Targeted Regeneration Investment programme, in July 2019.

Our vision to transform our offer to the local and regional communities has been in the pipeline for a number of years. With the funding in place, we were able to embark on our exciting journey to rebrand as well as relocate to Wrexham town centre, both key components of reaching under-served communities while maintaining relationships with our existing customers.

Securing this funding has allowed us to expedite our plans to be a truly vibrant hub in the heart of the community. It's also provided revenue funds that has enabled the employment of a community outreach team who have delivered a range of amazing events and projects that have resulted in positive impact across north Wales and the north west of England.



Community engagement

Project 1: Senior STEM



Our community outreach team, funded by the Inspiring Science fund, has built strong relationships with care homes and other organisations supporting vulnerable adults, showing that Xplore! genuinely is for everyone.

From making slime to launching rockets, residents in care homes across Wrexham as well as day centre visitors have rediscovered, or found for the first time, their love of science and engineering.

The sessions have been particularly popular with those with a background in engineering.

In addition to Wrexham, the Xplore! community outreach team will extend its reach into Flintshire and other surrounding counties.

Inspired by the Wrexham Science Festival, which ran until 2014, DARGANFOD//DISCOVER, was first held in 2018.

Following a three-year hiatus, Xplore! partnered with Tŷ Pawb to bring back DARGANFOD//DISCOVER, a weekend of science-filled fun and entertainment, for 2021.

More than 600 people representing a diverse range of the community attended to try their hands at a variety of activities, with the Exploding Custard Show proving popular.

With the event being held in the town centre, we were able to welcome a new audience. Feedback such as 'we just happened to be passing' and 'we didn't think Xplore! was something for us' was common throughout, which illustrates a resounding success.

Project 2: DARGANFOD//DISCOVER





In-centre school visits



Welcoming primary schools to our facility has been a core activity for us through the years.

The excitement of the children as they arrive and see the colourful and intriguing exhibits is clear for all to see, with the teachers not far behind in their eagerness to explore.

With more than 7,000 school pupils attending site in 2018/19, a covid-reduced number of just under 4,000 was achieved between July 2019 and July 2021.

We are passionate about returning to and then exceeding pre-pandemic levels, particularly with a new bigger location and dozens of new and engaging exhibits for the children to play with.

Ysgol Alexandra in Wrexham is one such school that has taken a trip to our new town centre home, and the feedback has been incredibly positive from all who came.

The experience extends beyond the youngsters to the teachers, with many learning something new themselves on the trip, or braving the bridge test – standing on a structure built by the pupils in the construction zone.

It's also pleasing to hear that the learners' time at Xplore! benefits their classwork. One such example is the interactive exhibits being used as a prompt in the classroom to help them answer questions and for it all to click into place.



More than 1,300 teachers have visited since July 2019

More than 150 primary schools engaged with since July 2019



School outreach

Xplore! has developed wonderful relationships with schools in the region, with a strong focus on inspiring the next generation of STEM superstars.

School outreach, where we travel to the school to work with the learners in their own environment, has been increasing after the covid-19 pandemic initially placed these on hold.

One such example with a secondary school is our visits to Ysgol Bryn Alyn in Wrexham. After a positive impact on their year 10 pupils, we delivered a series of workshops for year 8, which focused on robotic programming with LEGO.

The learners were fascinated and truly engaged by the process of learning about the software, the basics of programming a robot vehicle to move, and then how to introduce sensors to navigate a course.

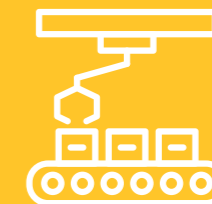
The events allowed the pupils to not only discover and practice new areas of STEM, but to build on further skills such as problem solving, working as a team, and overcoming challenges.

In addition, during the pandemic when visits were not possible, we supported secondary schools with the delivery of science packs to assist teachers with keeping learners engaged in STEM.



Since July 2019:

32 secondary schools engaged with
More than 2,900 secondary school pupils interacted with
180 science packs delivered to secondary schools



In-centre activities

From a sell-out opening weekend in October 2020, Xplore! has continued to delight, amaze and inspire the thousands of people who have visited us.

Being open during term time, in the school holidays and at the weekends allows us to welcome a diverse range of customers encompassing all ages, abilities, ethnic backgrounds and genders.

The variety of exhibits regularly leave the parents, grandparents and guardians surprised that they are suitable for them as well as the children, which means they can interact alongside the youngsters.

In addition, the adults can often be found sharing their own knowledge with the children; a STEM conversation that would likely not have taken place without the fun family day out at Xplore!.

Special events and shows, such as astro-club, which has been going strong for 10 years, continue to be well-received, with the vast array of space topics attracting a variety of demographics.

In addition, one benefit of the virtual astro-club events has been our ability to welcome speakers from further afield, such as from the National Space Centre in Leicester.

All of this is contributing to the annual membership scheme again proving popular, with repeat visitors becoming vital brand ambassadors for the centre.



More than 100 exhibits spanning different areas of STEM

13,209 in-centre visits (from 4 October 2020 to 31 October 2021)



We have worked closely with the community to introduce sessions for specific groups, including continuing with a family favourite.

Toddler days, for those aged up to 4 years, were popular at our previous location and are still well attended since our relocation, with many familiar faces returning.

The dedicated slots allow us to focus on different topics, ranging from dinosaurs and space to the night-time and colours.

One of our new sessions are Sensory Days, which allow us to reach a new audience and make the centre as accessible as possible. We reduce the lights and noise with learners experiencing the exhibits and moving through the centre at their own pace.

We have also launched Education Days, specifically targeted at learners who are home-schooled, with access to tailored activities and workshops.

All three days allow for everyone to meet like-minded people, from the parents and guardians down to the children. Engaging with a diverse range of community groups helps to demonstrate we are truly a science discovery centre for all.



800+ people have attended toddler days





Business engagement

Xplore! has continued to strengthen its links with the business community across the region, which has direct benefits for our users.

From sponsoring school visits and exhibits to partnering on workshops, the collaborative approach between Xplore! and local companies ensures that all activity enhances the customer experience.

Principality Building Society



In 2019 Xplore! and the Principality Building Society worked together with the aim of reaching 250 youngsters in a pilot scheme to increase their understanding of saving and of good money management.

Aimed at years 1 and 2, sessions included coin and note recognition, understanding the value of items, how to earn money and ways to save money, as well as role play, which went down well with the learners.

The workshops were well-received by the recipients, with St Chad's School in Hanmer commenting: "All the children were thoroughly engaged and were able to be involved at a range of levels according to ability."

The success of the pilot has led to the workshop being rolled out to a further 1,500 children during 2021/2022.



452 children engaged (against a target of 250)

Know how to save money: 34% before // 95% after



School sponsorship



A shared passion to protect and enrich the lives of future generations in Wales led to a key sponsorship at Xplore!

The centre is in the midst of a five-year charitable partnership with Hafren Dyfrdwy, which provides water and wastewater services in northeast and mid Wales.

As part of the agreement, Hafren Dyfrdwy sponsored two bespoke interactive exhibits that highlight the importance of water in our lives.

Visitors have been stamping on images projected onto the floor of items that should not be flushed down the toilet or put down the kitchen sink, helping to reinforce what should not end up in sewers.

The projection game also has a Q+A based on how much water various household items use.

The second exhibit, Looking after your wonderful water, has seen users create pathways with magnetic pipes for blue water balls to travel around a house. When the ball enters an item, for example the bath, a symbol flashes up with the amount of litres it takes on average to complete this task.

While the partnership started off with the creation of two tailored exhibits, the relationship between Xplore! and Hafren Dyfrdwy has continued, with the water company bringing its interactive buses to DARGANFOD//DISCOVER.

School sponsorship options for local companies provides an alternative method of supporting Xplore! and its passion for making STEM accessible for all.

Whether paying for one class or an entire year group to visit Xplore!, business leaders have been stepping up to the plate to give back to the community.

One organisation supported the managing director's former primary school in being able to attend, another funded the closest school to its head office, and another business owner was able to support the school where their children attend.

Hafren Dyfrdwy



7 care homes visited

160 individuals engaged in the Senior STEM initiatives

600 science packs distributed to isolated people aged 60+

More than **600** people attended DARGANFOD//DISCOVER 2021

More than **1,300** teachers have visited since July 2019

More than **150** primary schools engaged with since July 2019

32 secondary schools engaged with since July 2019

More than **2,900** secondary school pupils interacted with since July 2019

180 science packs delivered to secondary schools since July 2019

More than **100** exhibits spanning different areas of STEM

13,209 in-centre visits (from 4 October 2020 to 31 October 2021)

800+ people have attended toddler days

2,600 science packs distributed to families



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