
Schools Engagement at Cardiff School of Medicine

This report highlights an overview of the centrally coordinated schools' engagement initiatives run during academic year 2019-2020.



Introduction

At the School of Medicine, there is an enormous amount of engagement work aimed at inspiring school children across Wales, to excite them about science and the wide range of healthcare career opportunities available.

Our flagship Science in Health programme involves a team of professional engagement staff and academic staff from all levels of seniority from PhD to Professorial level. In addition to this our MEDIC Ambassador programme facilitates increased engagement with primary and secondary schools across Wales. Other engagement initiatives of members of staff and students are also supported, including

- Widening Access to Medicine Mentoring Scheme (WAMMS)
- Organ Donation Teaching project
- Medican
- Promoting Academic Excellence (PACE) project

During this academic period, the coronavirus pandemic enforced a national lockdown of society including Schools across the UK. Certain planned events had to be cancelled including the flagship Science in Health LIVE event and the laboratory work experience scheme. To ensure 2019/20 Year 12 pupils did not miss out entirely on engaging with the School of Medicine, the resourceful team took activity online.

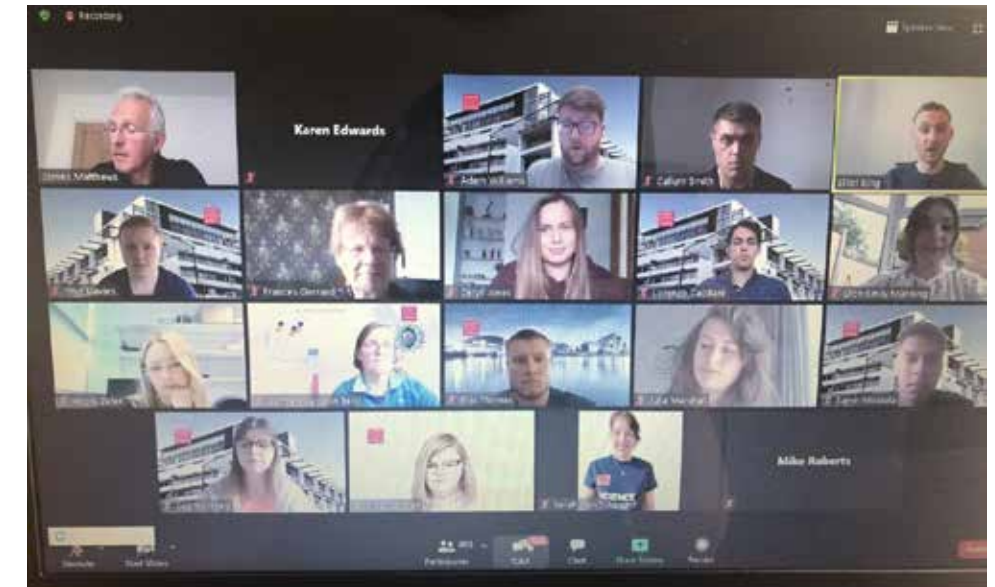
At the end of this report is a table of the total number of schools that participated in engagement activities facilitated by the School of Medicine Engagement team in academic year 2019/20. This table also indicates engaged Secondary Schools located in areas with the highest levels of deprivation according to the Welsh Index of Multiple Deprivation (WIMD).

In total, the School of Medicine engaged with 10 colleges, 123 secondary schools (14 located in areas of highest deprivation), and 10 primary schools in Wales. Over 34% of schools and colleges that engaged with the School of Medicine in this academic year participated in more than one engagement activity. Reflecting on last year's figures of schools engaged with and despite the outbreak of COVID-19, the School of Medicine has increased engagement with secondary schools by 22% and Colleges by 7%.

Science in Health (SiH)

Throughout 2019/20 academic year the following Science in Health activity took place –

- Public lecture series (October 2019 – March 2020)
- Life Sciences Challenge quiz (February 2020 – December 2020)
- Science in Health Online (July)



Science in Health Public Lectures

The highly successful Science in Health Public Lecture series continues to attract a diverse audience of interested individuals. The lectures have three main aims – to open up areas of concern in health care, to present new research on health issues to the public and to inspire the next generation of life science researchers.

The lectures are held monthly on Thursday evenings from October to March. They are recorded and available on the Science in Health website pages of Cardiff University (www.cardiff.ac.uk/scienceinhealth).

Topics from the 2019- 2020 series include:

- 'Healthy diets from sustainable food systems.'
- 'Huntington's disease: can we train the brain?'
- 'Dyslexia: Myth, Gift or Disorder.'
- 'Is obesity a choice?'

Reach:

- Between 150-200 members of the public, secondary school pupils and professionals attend each lecture.

Impact:

- Provides information on public health and current medical research and opportunities to engage experts and ask questions
- Provides a broad perspective for students considering a career in a variety of areas of healthcare and biomedicine.



Feedback from the lectures include:

"Very interesting and I value the information and good topic selection."

"Pushed me up several learning curves."

"Great resource for professionals!"

"Thank you – very good to see topics like this put out to the public and for free!"

"Very useful – I have learned lots of new information. I can use this for my personal statement."

"I have gained valuable knowledge I can use to expand my studies."

"They have allowed me to consider what I want to do in the future."

"They are good introductions for lay people and can introduce new studies/fields to them."

"A chance to expand understanding of science."

Science in Health – Life Sciences Challenge

The Life Sciences Challenge/Her Gwyddorau Bywyd is a national inter-school quiz competition, delivered in Welsh and English, aimed at Year 10/11 pupils. Every year, a new quiz is designed and delivered by PhD students, early career researchers and staff.

The researchers who take part in the Life Sciences Challenge quiz are passionate about science and wish to share their enthusiasm for the natural world with pupils in Wales.

The event gives pupils the opportunity to meet young scientists working locally, and tests pupils' ability to analyse data and apply logic and learned knowledge to unfamiliar concepts, helping them to understand the living world.

Reach:

- 215 teams (860 pupils) from 60 schools across Wales entered the quiz.

Impact:

- Raising awareness and inspiring pupils to consider the possibilities of careers in science and medicine.
- Increasing understanding of the role of science in health.
- Promoting the work and research of the University in the science and healthcare disciplines.
- School pupils networking with other Schools.
- Recognises and awards achievement in maths and science.

The 2019 winners of the English quiz were Brynteg School in Bridgend. Teacher Clare Allen said:

"Thank you so much to you and your team for organising the quiz. The pupils really enjoyed the whole experience and the rounds were pitched at the right level being both taxing and fun".

The winners of the Welsh quiz were Ysgol Tryfan in Bangor. Teacher Nia Jones said:

"We had a wonderful day, and the competition was an excellent experience for the pupils and myself, yet again."



MEDIC Ambassadors

Launched in academic year 2017-18, the School of Medicine MEDIC Ambassadors programme has two main purposes :

- To enable expansion of engagement activity with schools and communities across Wales, providing additional support and mentoring to pupils and teachers, enhancing the curriculum and raising aspirations from a School of Medicine perspective.
- To enhance mentoring, pedagogy, communication and employability skills in staff and students.

As of 2020 more than 150 students from across the years of study have now registered to become Ambassadors.

Reach:

During the academic year 2019 - 2020 participation was as follows:

Secondary schools and colleges

1. Year 9 Careers Day, Fitzalan High School
2. Mock MMI session, City Hall
3. Breast Cancer teaching session, Fitzalan High School

Primary schools

4. Inspiring Futures, Tredegarville Primary
5. Heart Workshop, Ogmere Vale Primary
6. 'Blood, bones & gory bits' workshops – St Brides Major Primary

Public Events

7. The Living Autopsy, Royal College of Pathologists

8 MEDIC Ambassadors have taken part in the above events (some on multiple occasions).

Impact:

The impacts for university staff, alumni and students are:

- Development of employability skills
- Enhanced communication skills
- Supporting the National Curriculum
- Inspiring future scientists, medics and healthcare professionals
- Supporting the recruitment strategies of CU
- Establishing relationships with schools to make learning fun and engaging.

The impact for schools and teachers include

- Support in teaching the curriculum
- Enhanced learning, backed up with “real life” examples
- Inspiring teachers and pupils and raising career aspirations
- Long term partnership with Cardiff University School of Medicine.

This feedback was received from MEDIC Ambassador Bethan Cumins:

“I really enjoyed running an interactive workshop on the heart in a local primary school. It provided a great opportunity to try something different and give planning and teaching a lesson a go. It was really fun to let the students use the stethoscopes and pulse oximeters, which would have been tricky to facilitate if the session was run by someone outside of the medical field. It also allowed me to interact with pupils and teachers and provide information about science and healthy living. I found it to be a really valuable learning experience and am encouraged that the teachers and pupils had a similar experience!”

Sarah Garner, teacher from Ogmere Vale Primary provided the following feedback:

“I am very grateful to your student for being such a star. She engaged the children, had a good rapport with them and gave a lovely presentation. We would love for her to come back. It was definitely a worthwhile experience for both the children and I. We had some problems our end with technical hitches, some disruptive behaviour and a fire alarm!! She was amazing and coped really well with these issues.”

Widening Access to Medicine Mentoring Scheme (WAMMS)

The academic year 2019-2020 has built upon the progress made during previous years of the scheme, with the aim of increasing the number of Welsh domiciled pupils from lower socio-economic backgrounds successfully applying to medical students.

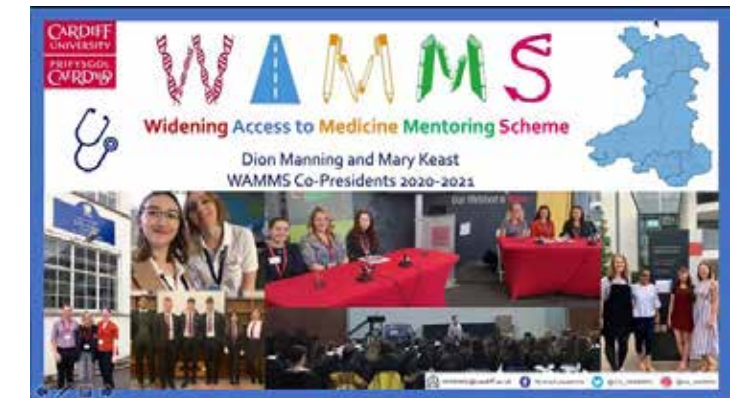
Medical students have visited schools across Wales to provide support and advice on the application process.

Reach:

- During the 2019-2020 academic year 24 schools were visited.

Impact:

- Increased visibility of undergraduate medical students in Schools across Wales
- Recognition of the value of peer support and mentoring to Welsh pupils considering medicine
- Opportunity for undergraduate medical students to develop engagement and communication skills
- Support for the Welsh Government priority to increase the numbers of Welsh domiciled pupils applying to study medicine



Organ Donation Teaching Pilot Project

Following on from the success of the 2018-19 pilot, medical students have been delivering teaching sessions on organ donation to year 6 pupils across South East Wales. This has been coordinated by the student society Students for Organ Donation.

The teaching aimed to stimulate conversations and debate about organ and tissue donation among children, and to encourage them to have conversations about their wishes and to learn about the wishes of their family members.

Reach:

- More than 10 medical students visited 7 primary schools in South Wales.

Impact:

- Increased discussion of the importance of organ donation amongst school pupils and their families
- Provision of a safe and informed environment to start discussion on a sensitive subject, with information specifically generated with the target pupils in mind
- Opportunity for undergraduate medical students to develop engagement and communication skills
- Increased visibility of undergraduate medical students in Schools across Wales

Positive feedback was received from teachers and pupils:

"This session was very well delivered by students for organ donation and I know it will help to encourage the students to discuss and talk about these issues at home."

"This session provided an effective, sensitive, and informative introduction to organ donation with a brilliant Q + A section at the end, raising awareness and starting an important conversation."

"The students were engaged in the lesson and enjoyed learning from the medical professionals. It reinforced the work done in our current curriculum topic."

"Having medically trained volunteers made it relevant and it encouraged the children to think carefully about organ donation and sharing their wishes."

"This session provided good resources and explanations. The pupils were engaged and asked further questions. It evoked interesting discussion, questions and decision making and the children were also given the opportunity to ask questions about a career in medicine".

Feedback from the medical students included:

"I have really enjoyed going into schools and teaching the children about organ donation and the importance of sharing your wishes with family and loved ones. I was amazed at how engaged the pupils were throughout the session, the enthusiasm they had for the topic and at the brilliant questions they asked. I hope the pupils learnt a lot and it has fuelled their passion to spread the positive messages surrounding organ donation."

"Teaching young students is extremely rewarding as they are very open and honest with their opinions and feedback and very freely express themselves and are ready to talk about difficult topics like organ donation. This was very rewarding and seeing their enthusiasm and spirit further boosted ours and motivated us to keep delivering the content that's so important."

"I enjoyed teaching the students with the knowledge that they were so keen and wanted to immediately talk and take the conversation back home – spreading the idea to "have the talk" about organ donation just as we hoped they would!"



MediCan

MediCan is an innovative student society bringing medical opportunities to the local community and working with state schools in the Cardiff area to assist young and ambitious students with getting into medical school.

In October 2019, MediCan organised a First Aid Day in partnership with another student society, Wilderness and Expedition Medicine (WEMS), to engage local Welsh sixth formers with an interest in studying medicine with a free day of learning first aid activities.

The First Aid Day consisted of mini lectures giving the basics, before the pupils were given the opportunity to practice first aid skills with the use of manikins. Medical students used role play to act as casualties in dramatic scenarios, including basic life support and catastrophic bleeds. After a brief tour of the University Hospital of Wales, the pupils participated in talks and group work focussed on applying to medical school. Pupils particularly enjoyed the group work and gave the event an average rating of 9/10.

Reach:

- 21 sixth formers from South Wales took part in the First Aid event.

Impact:

- Opportunity for local state school pupils to engage with medical students and gain an insight into student life.
- Learning of potentially life-saving skills including hands-on experience
- Opportunity for undergraduate medical students to develop engagement and communication skills.
- Increase of applications to medicine from pupils from local state schools based in Cardiff.



Promoting Academic Excellence (PACE)

Following the successful pilot project in the last academic year, the PACE project expanded into the 2019-20 academic year.

The existing cohort of year 9 pupils continued to have weekly sessions as year 10 pupils, alongside a new cohort of year 9 pupils. Over 30 year 2 medical students, organised in six groups, ran the weekly sessions, with the addition of a healthcare sciences student (physiotherapy) joining each group. Each group was mentored by two year 3 students who had run the pilot scheme previously.

Reach:

- 20 Year 9 and 20 year 10 Fitzalan pupils were tutored by 36 medical students and 6 healthcare sciences students..

Impact:

- Pupils enjoyed learning: “useful stuff like CPR, cures and diagnosis along with the prevention of disease.”
- Pupils appreciated learning about medicine and meeting new people.
- Pupils felt they were more likely to apply to university because of “the support and resources available at university, such as books and computers”
- An opportunity for medical students to develop their teaching and communication skills.

Feedback from the medical students included:

“I liked being creative and thinking of different ways to deliver the sessions.”

“I have learnt how to adapt my teaching methods when with a younger audience.”

“It was hard to know how to initially start teaching, however the project allows independence to find your own niche in teaching.”

Feedback from the pupils included:

- *“It was more fun and interactive than I thought. The discussions are interesting.”*
- *“It’s very inclusive.”*
- *“I like how easy it is to get along with the students/tutors.”*



Table of Schools Engagement Activity Across Wales 2019-20

School Name	Local Authority	Sector	SIH*	LSC	HGB	MA	WAMMS	PACE	OD
Ysgol Bodedern	Isle of Anglesey	Secondary	X				X		
Ysgol David Hughes	Isle of Anglesey	Secondary	X						
Ysgol Gyfun Llangefni	Isle of Anglesey	Secondary	X						
Coleg Meirion-Dwyfor	Gwynedd	College	X						
Ysgol Dyffryn Ogwen Bethesda	Gwynedd	Secondary			X				
Ysgol Botwnnog	Gwynedd	Secondary			X				
Ysgol Brynrefail	Gwynedd	Secondary	X						
Ysgol Godre'r Berwyn	Gwynedd	Secondary			X				
Ysgol Syr Hugh Owen	Gwynedd	Secondary	X						
Ysgol Tryfan	Gwynedd	Secondary	X		X				
Ysgol Tywyn	Gwynedd	Secondary		X					
Ysgol Glan Y Mor	Gwynedd	Secondary		X					
Ysgol John Bright	Conwy	Secondary	X	X					
Ysgol Y Creuddyn	Conwy	Secondary	X				X		
Ysgol Eirias	Conwy	Secondary	X						
Ysgol Dyffryn Conwy	Conwy	Secondary	X						
Ysgol Uwchradd Glan Clwyd	Denbighshire	Secondary	X		X		X		
Ysgol Brynhyfryd	Denbighshire	Secondary	X		X				
Ysgol Dinas Bran	Denbighshire	Secondary	X						
Denbigh High School	Denbighshire	Secondary	X						
Prestatyn High School	Denbighshire	Secondary	X						
Coleg Cambria	Flintshire	College					X		
Hawarden High School	Flintshire	Secondary	X						
St Richard Gwyn	Flintshire	Secondary	X						
Flint High School	Flintshire	Secondary	X						
Alun School	Wrexham	Secondary	X				X		
Castell Alun High School	Wrexham	Secondary	X						
Ysgol Ciywedog	Wrexham	Secondary		X					
Ysgol Morgan Llwyd	Wrexham	Secondary			X				
St Joseph's Catholic And Anglican High	Wrexham	Secondary		X					
The Maelor School	Wrexham	Secondary	X						
Crickhowell School	Powys	Secondary	X						
Welshpool High School	Powys	Secondary	X						
Ysgol Calon Cymru	Powys	Secondary	X		X		X		
Christ College Brecon	Powys	Secondary	X						
Ysgol Uwchradd Aberteifi	Ceredigion	Secondary	X						
Ysgol Bro Pedr	Ceredigion	Secondary	X	X					
Ysgol Bro Teifi	Ceredigion	Secondary	X						
Ysgol Penglais	Ceredigion	Secondary	X	X					
Ysgol Gyfun Penweddig	Ceredigion	Secondary	X		X				
Pembrokeshire College	Pembrokeshire	College	X						
Ysgol Penrhyn Dewi (prev Dewi Sant)	Pembrokeshire	Secondary		X					
Ysgol Gyfun Aberaeron	Pembrokeshire	Secondary	X						
Ysgol Harri Tudur	Pembrokeshire	Secondary	X						
Haverfordwest High VC School	Pembrokeshire	Secondary	X						
Ysgol y Preseli	Pembrokeshire	Secondary	X		X				
Ysgol Dyffryn Aman	Carmarthenshire	Secondary		X					
Bryngwyn	Carmarthenshire	Secondary		X					
Coedcae School	Carmarthenshire	Secondary		X					
Dyffryn Taf	Carmarthenshire	Secondary	X						
Ysgol Gyfun Y Strade	Carmarthenshire	Secondary	X		X				
Queen Elizabeth High School	Carmarthenshire	Secondary	X	X					
St John Lloyd RC School	Carmarthenshire	Secondary		X					
Ysgol Maes y Gwendraeth	Carmarthenshire	Secondary	X		X		X		
Ysgol Bro Dinefwr	Carmarthenshire	Secondary	X						
Ysgol Bro Myrddin	Carmarthenshire	Secondary			X		X		
Gower College	Swansea	College	X						
Ysgol Gyfun Gwyr	Swansea	Secondary	X		X		X		
Bishop Gore School	Swansea	Secondary	X						
Bishop Vaughan School	Swansea	Secondary	X	X					
Olchfa School	Swansea	Secondary	X						
Morrison High School	Swansea	Secondary	X						
Ysgol Gyfun Ystalyfera Bro Dur	Neath Port Talbot	Secondary		X					
Penybont Sixth Form College	Bridgend	College	X						
Maesteg Comprehensive School	Bridgend	Secondary	X						
Brynteg School	Bridgend	Secondary	X	X			X		
Bryntirion School	Bridgend	Secondary	X						
Pencoed High School	Bridgend	Secondary	X						

Porthcawl Comprehensive	Bridgend	Secondary	X	X					
Ysgol Gyfun Gymraeg Llangynwyd	Bridgend	Secondary	X		X				
Coleg Cymunedol Y Dderwen	Bridgend	Secondary	X						
Archbishop McGrath Catholic High School	Bridgend	Secondary	X						
Ogmore Vale Primary School	Bridgend	Primary				X			
Ysgol Bro Morgannwg	The Vale of Glamorgan	Secondary	X		X				
Cowbridge Comprehensive School	The Vale of Glamorgan	Secondary	X						
Llantwit Major High School	The Vale of Glamorgan	Secondary	X						
Pencoedtre High School	The Vale of Glamorgan	Secondary	X						
St Cyres Comprehensive School	The Vale of Glamorgan	Secondary	X	X					
St Richard Gwyn	The Vale of Glamorgan	Secondary	X	X					
Stanwell School	The Vale of Glamorgan	Secondary	X						
Whitmore High School	The Vale of Glamorgan	Secondary	X						
St Bride's Major Primary School	The Vale of Glamorgan	Primary				X			
Bryncelynog Comprehensive School	Rhondda Cynon Taf	Secondary	X				X		
Cardinal Newman	Rhondda Cynon Taf	Secondary	X						
Hawthorn High School	Rhondda Cynon Taf	Secondary	X						
Ysgol Gyfun Garth Olwg	Rhondda Cynon Taf	Secondary	X		X				
Tonyrefail Community School	Rhondda Cynon Taf	Secondary	X						
Treorchy Comprehensive	Rhondda Cynon Taf	Secondary	X						
Porth County Community	Rhondda Cynon Taf	Secondary			X				
Pontypridd High School	Rhondda Cynon Taf	Secondary			X				
St John the Baptist CIW High School	Rhondda Cynon Taf	Secondary	X						
Y Pant Comprehensive	Rhondda Cynon Taf	Secondary	X						
Ysgol Gyfun Rhydywaun	Rhondda Cynon Taf	Secondary	X		X				
Ysgol Llanhari	Rhondda Cynon Taf	Secondary			X		X		
Ysgol Gyfun Cwm Rhondda	Rhondda Cynon Taf	Secondary	X		X				
Cyfarthfa High School	Merthyr Tydfil	Secondary			X				
Merthyr Tydfil College	Merthyr Tydfil	College	X						
Coleg y Cymoedd	Caerphilly	College	X				X		
Bedwas High School	Caerphilly	Secondary	X						
Newbridge School	Caerphilly	Secondary			X				
Heolddu Comprehensive School	Caerphilly	Secondary	X				X		
Ysgol Gyfun Cwm Rhymini	Caerphilly	Secondary	X						
St Cenydd School	Caerphilly	Secondary					X		
St Martin's	Caerphilly	Secondary	X	X					
Islwyn High School	Caerphilly	Secondary			X				
Lewis School Pengam	Caerphilly	Secondary	X	X					
Lewis Girls' Comprehensive School	Caerphilly	Secondary	X	X			X		
Idris Davies Comprehensive School	Caerphilly	Secondary	X	X					
Croesyceiliog School	Torfaen	Secondary	X						
Ysgol Gwynllyw	Torfaen	Secondary	X						
St Alban's	Torfaen	Secondary			X				
Monmouth Comprehensive School	Monmouthshire	Secondary	X						
King Henry VIII Comprehensive	Monmouthshire	Secondary					X		
Coleg Gwent	Newport	College	X				X		
Bassaleg	Newport	Secondary	X						
Caerleon Comprehensive School	Newport	Secondary	X	X			X		
Llanwern High School	Newport	Secondary	X						
Llisbury High School	Newport	Secondary					X		
St Joseph's RC High School	Newport	Secondary	X						
St. Julian's High School	Newport	Secondary					X		
St David's Catholic Sixth Form College	Cardiff	College	X						
Cardiff and Vale College	Cardiff	College	X						
Cardiff High School	Cardiff	Secondary	X	X					
Cardiff West Community High School	Cardiff	Secondary		X					
Fitzalan High School	Cardiff	Secondary				X		X	
Cathays High School	Cardiff	Secondary		X			X		
Corpus Christi	Cardiff	Secondary		X					
Llanishen High School	Cardiff	Secondary	X						
Radyr Comprehensive School	Cardiff	Secondary	X	X			X		
Ysgol Gyfun Gymraeg Glantaf	Cardiff	Secondary	X		X				
Ysgol Gyfun Gymraeg Plasmawr	Cardiff	Secondary	X						
Ysgol Gyfun Gymraeg Bro Edern	Cardiff	Secondary	X						
St Teilo's C-In-W High School	Cardiff	Secondary	X	X			X		
Whitchurch High School	Cardiff	Secondary	X	X					
Birchgrove Primary School	Cardiff	Primary							X
Coed Glas Primary School	Cardiff	Primary							X
Holy Family RC Primary School	Cardiff	Primary							X
Severn Primary School	Cardiff	Primary				X			
Tredegarville Primary School	Cardiff	Primary				X			X
Windsor Clive Primary School	Cardiff	Primary							X
Ysgol Mynydd Bychan	Cardiff	Primary							X
Ysgol y Berllan Deg	Cardiff	Primary							X

Independent Schools/Colleges

Cathedral School, Llandaff	Cardiff	Secondary	X	X					
Westbourne School	The Vale of Glamorgan	Secondary	X						
Howells's School, Llandaff	Cardiff	Secondary	X						
St John's College	Cardiff	Secondary	X	X					
Ruthin School	Denbighshire	Secondary	X						
Ffynone House School	Swansea	Secondary	X						
Haberdashers' Monmouth School for Girls	Monmouthshire	Secondary	X						
Cardiff Academy	Cardiff	Secondary	X						
Cardiff Sixth Form	Cardiff	Secondary	X						
King's Monkton School	Cardiff	Secondary	X						
UWC Atlantic College	Vale of Glamorgan	College	X						

Key:

SIH*	Science in Health Online
LSC	Life Sciences Challenge
HGB	Her Gwyddorau Bywyd
MA	MEDIC Ambassadors
WAMMS	Widening Access to Medicine Mentoring Scheme
PACE	Promoting Academic Excellence (Fitzalan School project)
OD	Organ Donation teaching scheme

10	College
123	Secondary
10	Primary
11	Independent
154	TOTAL
Welsh Index of Multiple Deprivation (WIMD)	
	WIMD (80-100%)
	WIMD (60-80%)

* Due to Covid-19 Science in Health Live event and the Work Experience Scheme for 2020 were cancelled - in their place a Virtual Science in Health Online event was held in July 2020.