

Press release: PHE scientists lead science workshops for 1,800 pupils

As part of this year's British Science Week, 1,800 pupils from 10 schools across England are being given the opportunity to take part in interactive science workshops hosted by Public Health England (PHE) scientists.

From pupils extracting DNA from their own cells using household products, to a science and health-related game of Pictionary and quizzes on air pollution, the aim of these workshops is to inspire the young people to consider a career in science and showcase the variety of areas within science they could pursue.

British Science Week is an annual 10-day event, with this year being its 24th year running. It encourages organisations, professionals in the science sector, science communicators and the general public to hold events that get people involved in scientific activities.

This year, PHE is expanding its reach to 10 schools across 3 regions: the North (Manchester, Salford), South West (Bristol, Cheltenham and Torquay) and South East (Harlow). During the week, there will be 25 PHE scientists leading interactive science workshops for pupils aged 13 to 14 years old.

The scientists taking part specialise in a range of disciplines, including toxicology, microbiology, environmental public health, microscopy, vaccine research and epidemiology.

Duncan Selbie, Chief Executive of PHE said:

It's important that the current generation of scientists informs and inspires the next generation, and shows young people the range of routes and opportunities they can pursue within world-leading UK science. We are thankful for the scientists taking part in British Science Week workshops across the country, and hope that their efforts encourage the pupils to consider a career in science as a viable and exciting option.

Sarah Robertson, Senior Environmental Health Scientist at PHE said:

I speak for all of the scientists involved when I say that we are excited to take part in British Science Week and showcase just a few of the many disciplines within science to the students. Although a large proportion of our time is dedicated to research, outreach work such as these interactive workshops is also our responsibility, particularly to highlight the breadth of our roles to young people. Science and research are imperative in our world and we must ensure that the future workforce continues to be made

up of talented and passionate individuals.

PHE is in the process of creating a world-leading centre of excellence for public health research, improvement and protection, and a new headquarters, at the vacant GlaxoSmithKline site in Harlow. This will involve relocating facilities from Porton in Wiltshire and Colindale in north London, as well as the current central London headquarters. PHE Harlow is expected to be fully operational by 2024.

1. [British Science Week](#) is an annual event and in 2018 takes place between 9 to 18 March.
2. Schools attending the sessions are:
 - Burnt Mill Academy
 - Forest Hall School
 - Mark Hall Academy
 - Stewards Academy
 - Passmores Academy
 - Torquay Academy
 - Fairfield School
 - All Saints' Academy
 - All Hallows R.C. High School
 - Walkden High School
3. [Public Health England](#) exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and providing specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific expertise and support. Follow us on Twitter: [@PHE_uk](#) and Facebook: www.facebook.com/PublicHealthEngland.

[Press release: Housing Minister announces homes boost for rural families](#)

Rural communities will be given more options to convert agricultural buildings into family homes to better meet local housing needs through planning rule changes, announced Housing Minister Dominic Raab.

Changes to permitted development rights will mean up to 5 new homes can be created from existing agricultural buildings on a farm rather than the maximum of 3 currently permitted.

Currently several hundred new homes each year are created through conversions of agricultural buildings, and these changes are expected to boost these numbers further.

The changes will help communities make the best use of existing buildings to help meet local housing needs more efficiently, while at the same time ensuring they remain in keeping with the character of the area and safeguard people's privacy.

Government is also giving applicants an extra year to convert further storage and distribution buildings into new homes that will help relieve local housing pressures.

Housing Minister Dominic Raab said:

We need to be more creative if we are to meet the housing needs of rural communities.

That's why I'm changing planning rules so rural communities have more flexibility on how best to use existing buildings to deliver more much needed homes for families.

This is part of our comprehensive reform programme to build the homes Britain needs.

The new measures will also help farmers adopt the latest innovations in modern farming practices by increasing the size limit of new agricultural buildings on larger farms from 465 square metres to 1,000 square metres.

Permitted development rights are a national grant of planning permission which allow certain building works and changes of use to be carried out without having to make a planning application.

The rights are subject to conditions and limitations to control impact and to protect local amenity.

The amended development right for the change of use of agricultural buildings to provide up to 5 new homes will allow for:

- up to 3 larger homes within a maximum of 465 square metres or
- up to 5 smaller homes each no larger than 100 square metres or
- a mix of both, within a total of no more than 5 homes, of which no more than 3 may be larger homes

To further support housing delivery, applicants will have a further year in which to benefit from the temporary permitted development right for the change of use of buildings used for storage and distribution to residential use. The right will be extended by a year until 10 June 2019.

The regulations to come into force on 6 April support the Ministry of Housing, Communities and Local Government's focus on making the most

effective use of land or buildings in the [draft revisions to the National Planning Policy Framework](#), announced earlier this week.

[Press release: Alun Cairns to host Commonwealth Big Lunch](#)

Secretary of State for Wales Alun Cairns will be joined by endurance athlete Richard Parks and representatives from youth, faith, diaspora and sport groups in Wales at a celebration of the global relationships forged by the Commonwealth when he hosts a Commonwealth Big Lunch in Cardiff Bay later today (12 March).

The Commonwealth Big Lunches, launched in partnership with the Eden Project, will take place across the Commonwealth between Commonwealth Day (12 March) and 22 April. The initiative is part of the official celebrations leading up to the Commonwealth Heads of Government Meeting in London next month.

Alun Cairns will celebrate the international and local connections created by the Commonwealth at a Big Lunch event at Caspian Point and encourage people to get together to celebrate their Commonwealth connections right across Wales.

Secretary of State for Wales Alun Cairns said:

The Commonwealth is a unique family of nations made up of people bound by shared histories and values.

To celebrate these bonds and our diversity, I'm delighted that the Office of the Secretary of State for Wales is hosting a Commonwealth Big Lunch right here in Wales, bringing members of our local communities together to celebrate what we have in common, as well as recognising the unique and diverse nature of the Commonwealth.

I'm looking forward to seeing every part of Wales come together to cement friendships, share food and fun with the people they live alongside at their own Commonwealth Big Lunch events between now and April. They offer wonderful opportunities for people of all ages to bring our great Commonwealth family alive in new ways as we work towards a common future – a future I'm incredibly hopeful for and the role Wales has to play in it.

The Commonwealth summit, held between 16-20 April, will see leaders from across 53 Commonwealth countries coming together in London and Windsor to

address shared global challenges and discuss how to create a better future.

With the theme of 'Towards a Common Future,' leaders will focus on delivering a more prosperous, secure, sustainable and fairer future for all Commonwealth citizens.

ENDS

- To find out more about the Commonwealth Heads of Government meeting, click [here](#)

[News story: Universities to be rated by subject quality](#)

Teaching excellence will be rewarded and poor quality teaching exposed under a new rating system for English universities, the Universities Minister has announced today (12 March).

In a global first, Universities Minister Sam Gyimah has launched a new tool that will rate universities either gold, silver or bronze by subject – holding them to account for the quality of their teaching, learning environment and graduate outcomes.

By extending the Teaching Excellence and Student Outcomes Framework – or TEF – to subject level the government aims to:

- help prospective students compare the different courses on offer across institutions, to make sure they get the most out of their university education;
- shine a light on course quality, revealing which universities are providing excellent teaching, and which are coasting or relying on their research reputation.

The Department for Education has today launched a 10-week public consultation, seeking views on the design of the new framework. This will run alongside a pilot of the scheme, which has 50 universities and colleges taking part, including the University of Cambridge, Imperial College London, London School of Economics and Political Science (LSE), De Montfort University and the Open University.

Universities Minister Sam Gyimah said:

Prospective students deserve to know which courses deliver great teaching and great outcomes – and which ones are lagging behind.

In the age of the student, universities will no longer be able to

hide if their teaching quality is not up to the world-class standard that we expect.

The new subject-level TEF will give students more information than ever before, allowing them to drill down and compare universities by subject. This will level the international playing field to help applicants make better choices, and ensure that more students get the value for money they deserve from higher education.

The plans announced today will build on the progress already made under the first wave of TEF – which awards universities with an overall rating of gold, silver and bronze. This new framework recognises that outcomes and teaching quality differ not just by university but also by course, and will allow students to look behind provider-level ratings and access information about teaching quality for a specific subject.

Those universities and colleges taking part in the pilot scheme for subject-level TEF are working with the sector in academic years 2017/18 and 2018/19, with the intention that the first full year of subject-level TEF will take place in 2019/20.

The new framework will take into account student feedback, drop-out rates and graduate outcomes to help deliver the objectives of the review of post-18 education launched by the Prime Minister last month, ensuring that students get the value for money they deserve from higher education.

The Minister will also launch an Open Data competition, the first of its kind in the UK HE sector, which will use selected government data on universities so that tech companies and coders can create apps to help prospective students decide where to apply.

This competition will build on the government's recently published Longitudinal Education Outcomes (LEO) dataset, which gives information on employment and salaries after graduation. By democratising access to information about courses and their outcomes, it will help all applicants, regardless of their background, make better decisions and get better value for money.

The Universities Minister added:

Our new Open Data Competition will open up Government data on universities for the first time. It will harness the creativity and enterprise of coders and tech businesses to create new tools to help applicants get value for money. And it puts government data to work for students, democratising the information Government holds about universities.

Press release: Government announces £300 million for landmark ageing society grand challenge

- Today's funding will support better diagnosis for UK patients through AI and new tech at new regional centres of excellence
- 500,000 Biobank volunteers will see their genome sequenced providing data that will help the UK lead the world in development of tools for early diagnosis and new pioneering therapies
- Extra £40 million invested in new hub for UK Dementia Research Institute
- New funding will develop new products and services which will help people live in their homes longer, tackle loneliness, and increase independence

As part of the government's plan to build a Britain fit for the future, the Business Secretary Greg Clark has today (Monday 12 March) announced a £300 million competitive fund to develop the innovations and new technologies of tomorrow.

Through the ambitious Industrial Strategy, government is investing over £300 million from its Industrial Strategy Challenge Fund (ISCF) to bring together the UK's world-class research expertise with business investment to develop technologies and industries that can help the UK prepare for the challenge of an ageing society.

To ensure taxpayer money is being invested in the right areas, the government set out four Grand Challenges in its Industrial Strategy – priority areas and industries the UK is determined to be at the forefront of in the future where we can lead the global technological revolution, creating more skilled jobs to boost the productivity and earning power of people throughout the UK. Through its Ageing Society Grand Challenge the government has committed to invest in harnessing the power of innovation to help meet the diverse needs of an ageing society.

More than 10 million people in the UK today can expect to see their 100th birthday, compared to the 15,000 centenarians today. Ageing populations are a global phenomenon that are creating new demands for technologies, products and services, including new care technologies, different housing models and innovative savings products for retirement.

Today's new allocation of funding will see the government invest over £300 million to ensure the UK is able to meet these demands, with £98 million for a 'healthy ageing programme' and £210 million for a 'data to early diagnosis and precision medicine programme' to improve diagnosis of disease and develop new medical treatments and technologies.

Welcoming today's announcement, Business Secretary Greg Clark said:

Through our Industrial Strategy we will not only boost innovation and productivity across the UK, but we will also ensure that this government changes people's lives for the better.

We are investing over £300 million into developing the treatments of the future, in new technologies that will revolutionise the way we age and provide everyone with the best possible chance to grow old with dignity in their own home.

By 2020 we want to be the best country in the world for dementia care and research and today's announcement of £40 million for the Dementia Research Institute is a vitally important step on that journey.

Caroline Dinenage, Minister of State for Care said:

As a society we are living longer – a child born today can expect to live to 100 years – but now we must seize the opportunity to improve the quality of lives lived longer. With an increasingly ageing population we must transform the way we think about our work, our housing, our health, our finances and our communities.

These investments will not only help in our aims to make this the best country in the world to live with dementia but provide a revolutionary vital boost to develop and scale up products and services of the future, ensuring everyone can age well and live more independently throughout their lives.

Healthy ageing programme

The £98 million 'healthy ageing programme' will drive the development of new products and services which will help people to live in their homes for longer, tackle loneliness, and increase independence and wellbeing.

The programme will be investing in tackling one of the toughest medical challenges facing society today, dementia. With an estimated 850,000 people in the UK living with the disease, the government will be investing in the creation of innovative new treatments of the future to help tackle it.

An extra £40 million will be going into the UK Dementia Research Institute (UKDRI) to create a new hub in partnership with University College London (UCL) that will host 350 leading scientists, researching new treatments to improve the lives of millions.

Dr Rob Buckle, Chief Science Officer at the Medical Research Council, added:

Developing the UK Dementia Research Institute hub in partnership with UCL will bring tremendous benefits for science and for health.

The new building will provide state-of-the-art facilities for research and the development of new dementia therapies, and will be located alongside neurology clinics and have a dedicated space for engaging dementia patients and their families and carers.

Data to early diagnosis and precision medicine programme

The £210 million investment in the 'data to early diagnosis and precision medicine' challenge will see the UK lead the world in the development of innovative new diagnostic tools, medical products and treatments.

As part of the funding announced today, the government will be investing in genomics, ensuring the UK continues to lead the world in large scale whole genome sequencing. Genome sequencing can help those with rare diseases receive faster diagnoses and cancer patients gain better access to personalised treatment programmes.

Through the new investment, the UK will sequence the genomes of 500,000 Biobank volunteers. The data from each of these volunteers will provide a rich resource of data that UK researchers will use to build a greater understanding of disease processes and enable the development of tools for early diagnosis and a new wave of therapies.

Regional centres of excellence

Over £70 million is going to be invested in creating regional centres across the UK to offer UK patients better diagnosis using new technologies including Artificial Intelligence (AI).

This investment, as well as future funding from industry, in new centres of excellence will support industry collaboration with the NHS to help the UK lead the world in digital pathology and radiology, including using AI to analyse medical images.

Applying AI to medical images has the potential to diagnose disease more accurately and therefore provide more targeted treatment, and increase efficiency in the health system.

Each centre will enable companies, including SMEs, to rapidly develop, test and implement products and systems in partnership with doctors and academics, improving patient care and gaining early evidence of real-world product value.

Investing in these programmes will enable research that could result in globally significant advances in healthcare such as cures for some cancers. The different strands of the ISCF programme will create the data needed to enable research into better diagnosis, treatment and prevention of disease.

Notes to editors:

What is the Industrial Strategy Challenge Fund?

1. In the Industrial Strategy White Paper the Government committed to invest a further £725m in the Industrial Strategy Challenge Fund (ISCF) over the next four years. The Government, through UK Research and Innovation (UKRI), will invest in challenges through the ISCF. Through focusing on the big innovation challenges facing the UK, the ISCF will maximise the value of the new ideas being developed and capture the value of innovation in the UK.
2. The ISCF is a new mission orientated funding approach providing an opportunity to build on our competitive advantage in key areas of research and business sectors, and develop innovative ideas that will transform industries and create whole new ones. It will bring together the UK's world leading research with business around a major industrial and societal challenge. Challenges have been aligned to the four 'Grand Challenges' set out in the Industrial Strategy White Paper.
3. The ISCF will borrow from the US Defence Advanced Research Projects Agency (DARPA) model by placing the responsibility for delivering a challenge in the hands of a 'Challenge Director'. Challenge Directors will be leading experts in the area and will coordinate across different delivery organisations to make the challenge a success.

Expressions of interest are now open for the [Industrial Strategy Challenge Fund Wave 3](#).