

Connect

Apprenticeship programme going from strength to strength

We're celebrating the 70th anniversary of our apprenticeship programme this year – it's helped more than 3,500 people launch their careers with its hands-on, earn while you learn training. We talk to apprentices old and new, delve into its history and hear about some of its latest plans...

With 233 people enrolled across 15 courses, our award-winning apprenticeship programme is the largest it's ever been – and it's set to expand further in its 70th year and beyond.

Our annual intake has doubled since 2015 as the needs of the business have grown and around 80 people now start their careers with us every autumn.

New courses launched in recent years have built on the programme's engineering roots to include areas like human resources, supply chain management and finance, along with the start of several degree level apprenticeships.

Marcus Hutchings, who manages the programme, says more are on the way: "Health and safety is an area we're looking at and, in the longer term, there will be new apprenticeships needed as our warhead replacement programme becomes established.

"And in the not too distant future, we expect to move into a new, purpose-built centre."

The Skills Academy's workshops and lecture rooms are the programme's hub, home to the 24-strong team Marcus leads.

"As we don't outsource the majority of our training, we're able to ensure a high-quality experience through using our own skilled and qualified instructors – our last Ofsted report rated us 'outstanding'," says Marcus.

"While most apprentices are initially in the Academy, some of our new courses, like laboratory technicians, are based out in the business from day one, supported by the Skills Academy team and in-placement mentors."

While the apprenticeships vary from two to five years depending on their final qualification level, they all involve



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WELCOME TO THE SPRING EDITION OF **CONNECT, AWE'S COMMUNITY NEWS MAGAZINE**

The ongoing pandemic has continued to send many challenges our way and AWE has found itself continually adapting to new and ever-changing ways of working.

However, we've remained focused on our core mission as we ride this pandemic wave and will continue to do so during 2022.

One cause for celebration during 2022 is the 70th anniversary of our apprenticeship programme. We're incredibly proud of the wealth of talent that has stemmed from this award-winning academy across the decades.

You can read more about the academy's heritage and meet some of our apprentices – both past and present – in this magazine.

We also focus on AWE's talented people who continued to be recognised during 2021 for their expertise and achievements and this came both via national awards and individual recognition.

Many charities have continued to be hit hard during the pandemic – both in terms of diminished funding and greater service demand – and AWE and its people have continued to support a number of charities and the invaluable work they do to help local communities. You can read more about this on pages 8-9.

We wish you and your family well during 2022. As always, we welcome your feedback on this issue and suggestions for future editions – contact us at communityandschools@awe.co.uk

The Editor

CELEBRATING THE 70TH ANNIVERSARY OF OUR

Programme still going strong

— CONTINUED FROM P1 

a mix of academic study – including a nuclear industry-specific element – and on-the-job training through placements across our sites.

They also feature outreach activities like science, technology, engineering and maths (STEM) career-related visits to schools and colleges, volunteering or community project work.

It's a formula that works well, says Marcus, a former apprentice himself.

"Most people continue their careers with us after they qualify and several are now in very senior posts. The programme has won numerous awards, as have individual apprentices for their work."



Marcus Hutchings



Among the recent awards won by our programme are:

- **2020** Winner Macro Employer of the Year for the south east for apprenticeships, National Apprenticeship Awards
- **2020** Top 100 apprenticeship employer status awarded by review-based website RateMyApprenticeship
- **2020** Winner Large Employer of the Year for apprenticeships, Institute of Physics
- **2019** Times Education Supplement Apprenticeship of the Year finalist
- **2018** Runner-up Macro Employer of the Year for the south east for apprenticeships, National Apprenticeship Awards

And accolades earned by our apprentices include:

- **2021** Brandon Smith project controls Apprentice of the Year (see story right)
- **2020** Finalist Nuclear Science Apprentice of the Year
- **2019** Finalist Nuclear Manufacturing Apprentice of the Year
- **2018** Winner Apprentice of the Year for Basingstoke College
- **2017** Winner Apprentice of the Year for the south east
- **2017** Finalist Nuclear Manufacturing Apprentice of the Year
- **2016** Nuclear Maintenance Apprentice of the Year

Interested in becoming an apprentice?

Applications open each October for the following September. For more details, check out www.awe.co.uk/careers/future-careers/apprentice-scheme/



The Queen and Prince Philip visited in 1979



‘Building on tradition, while moving forward’

The 10 young men who began their careers on our first apprenticeship 70 years ago would be surprised to see today’s expanded programme.

The range of courses and the number of apprentices have grown significantly in recent years and it’s become more diverse and inclusive since the first female apprentice joined in 1985. Our facilities, too, look very different. The Apprentice School for those first trainees – a converted parachute store on our wartime airfield site – has been extended several times and is now called the Skills Academy to reflect its practical craft focus.

While a lot has changed, the tried and tested format of the courses our apprentices followed largely remains the same – a combination of skilled instruction, on-the-job training and a recognised qualification with sessions at a local college.

Back then, when we were known as the Atomic Weapons Research Establishment (AWRE), they qualified – or ‘out-turned’ – in electrical or mechanical engineering.

While different levels and qualifications have been added over the years, those two branches of engineering have been the programme’s mainstay.

A clock made by our apprentices was presented to the Queen and Prince Philip during their visit to the business in 1979.

Although the first non-engineering course was offered in 2006 with information technology, most of the growth in subject areas – and in how many apprentices we recruit – has been over the last seven years. Additions include project controls in 2017, business administration in 2019 and the first apprenticeships built around degrees from 2017.

Skills Academy Manager Marcus Hutchings says the programme has a real sense of tradition of serving our evolving business needs and providing career opportunities for our community. “Our aim is to continue to build on that tradition and quality while also moving forward as technology changes,” says Marcus.

Bravo Brandon...

Brandon Smith is one of our latest apprentices to be recognised for their high quality work. He was named UK project management/project controls Apprentice of the Year at the 2021 Project Controls Expo.



Brandon Smith

FACTS AND STATS

- the gender balance is currently 21% female, 79% male
- 6% are over 25 when they join
- our oldest starter was 56
- two ex-apprentices who began their course in 1967 are still with us
- apprentices have been recruited every year since launch
- 26% of our engineers are former apprentices

Mike has 'many good memories'

Mike Allaston never looked back after becoming one of our earliest apprentices in 1953 – the experience proved a great take-off for a long career that's included work on components for Concorde, the Harrier jump jet and Airbus.

"I applied for three schemes, but chose AWRE's as it was just starting and was the most technical," remembers Mike, who's now 84 but was a keen 16-year-old just out of Basingstoke Grammar School when he joined the second running of the programme.

"The first year was classes in the apprentice school and then you were moved around the business working in different areas for the next four before getting your City and Guilds qualification.

"I also had classes at Basingstoke Technical College throughout the apprenticeship."

His group of around 30 young engineers were also taken on field trips, among them to a south Wales steelworks and a major glassmaker.

Mike Allaston with the toolbox he made during his first year as an apprentice



"The training was brilliant – you couldn't fault it," says Mike, who earned a merit award shield for his work. It was his final business area placement in the optical team that interested him most and it became his first job after qualifying.

"I went on to help build and set up the ultra high-speed cameras used to record the UK's first atomic tests in the Pacific," says Mike.

Over five years with the team, he honed the craft skills learned on his apprenticeship and the experience helped him land his next role. "I joined Smiths Aviation in Basingstoke and was there for 42 years," says Mike, who was involved with instrumentation for



many aircraft, including Concorde, the Harrier jump jet and Airbus.

He has stayed in contact with several of his fellow apprentices and organised their last reunion in 2015.

"I have many good memories from those years," says Mike, who still treasures the toolbox and tools he made as one of his first projects on the scheme.

Hands-on learning was just the job for laboratory

Swapping the classroom for hands-on learning was just the job for Megan Black after her maths, chemistry and physics A-levels.

"I knew I didn't want three more years of academic study, so I applied for science-based apprenticeships and was accepted on AWE's," says Megan, who joined our laboratory technician's programme.

Her two years were split across three placements in different labs working with mentors trained by the Skills Academy, with a day a

week at Reading College for a level three BTEC applied science course.

"The scheme was even better than I thought as I didn't expect to get quite so much responsibility – after you're signed off as competent to carry out a lab process, you're trusted to do it on your own," says Megan.

"And when working in a team, I was given actual jobs to do and could contribute, which helps you be passionate about your work."

Megan built up an evidence folder of her practical experience

and had monthly guidance sessions with her Skills Academy manager to review progress.

"The Skills Academy were also supportive through the pandemic making sure I had everything I needed to work from home, and I was able to do a lot of paper-based work before we returned to the labs," says Megan, who qualified with a distinction in 2020.

"The apprenticeship certainly helped me become self-sufficient and proactive. You're not spoon-fed and have to manage

Heidi following in Kerry's footsteps

Meet Kerry Barker, one of our many apprentices who have used the scheme as a great foundation to build a diverse and fulfilling career.

Thirty-six years after joining as a sporty teenager who didn't think of herself as academic, she's a senior technical manager leading a team of several hundred people as well as being AWE's Head of Profession for electronics engineering.

"I was at sixth form college trying to fathom what I wanted to do – career advice was fairly poor then – when my brother, who was already an apprentice, said 'why not get paid to learn', which sounded like a plan," recalls Kerry.

"Although I was good at maths, physics and computer studies, I found theoretical learning challenging.

"What attracted me was the mix of theory and the practical experience of applying it."

During her four years – two in the Apprentice Academy followed



Kerry Barker and her daughter Heidi



Kerry being presented with apprentice of the year trophy in 1989

by two moving around different engineering areas – she was 1989's Apprentice of the Year and did so well in her BTEC exams she was able to apply to do a sponsored degree.

"I studied electronics and radio

frequency communications and came back to work on holiday placements across the business and the Ministry of Defence (MOD)," says Kerry, who gained a first and went on to complete a shortened version of our graduate scheme.

"I've had about 20 roles since starting as a junior engineer and I'm proud to have progressed from apprentice to Head of Profession, along with becoming a Chartered Engineer and a Fellow of the Institution of Engineering and Technology."

A keen ambassador for science, technology, engineering and maths (STEM) career guidance in schools and colleges, Kerry's success has also inspired her daughter to become an apprentice.

"Heidi joined seeing it as a gateway to opportunity. She's now qualified and working in the business," says Kerry.

"The apprenticeship is a really amazing springboard for a career."

Are you a former AWE apprentice? If so, we'd like to hear from you as we're looking at staging a 70th anniversary tribute this year, which could include sharing memories and photos of the programme across its seven decades. If you'd like to be involved, email us on communityandschools@awe.co.uk

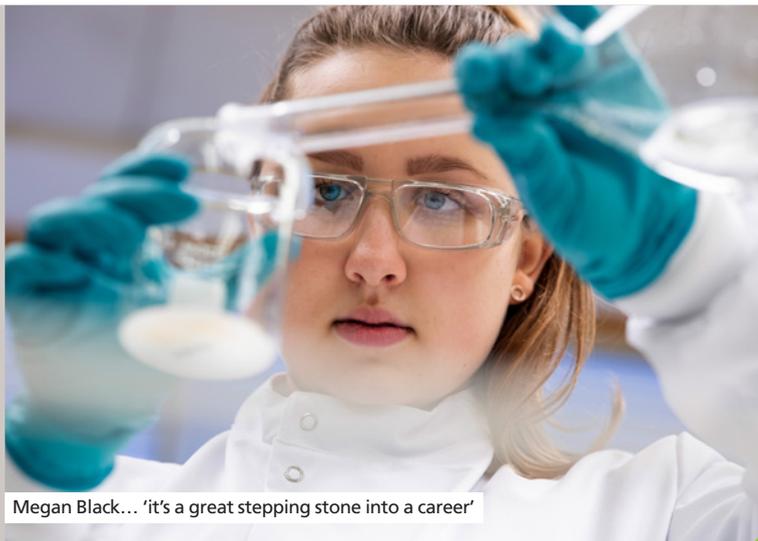
technician Megan

your time carefully, especially around exams."

More than a year on since qualifying, Megan's delighted with her laboratory technician role.

And through her apprenticeship success, she's just started a part-time chemistry degree sponsored by AWE and has gained accreditation with professional body The Royal Society of Chemistry.

"I'm very glad I opted for an apprenticeship – it's a great stepping stone into a career, plus you're paid while you do it," says Megan.



Megan Black... 'it's a great stepping stone into a career'



"We've made great strides in our wellbeing offering, and to be recognised as a leader among a truly global field is a testament to our teams and our people."

**Alison Atkinson,
CEO and MD**

With the trophies, left to right, Alison Dodd, AWE Employee Benefits Manager; Oliver Hook, Executive Director TP Health Ltd; Cleo Howie, AWE Wellbeing Manager; and Chris Coyne, AWE Head of Performance and Reward

Employee benefits trophy treble

In late 2021, AWE celebrated success in all of its shortlisted categories at the Employee Benefits Awards. These industry awards recognise excellence and acknowledges those who have made a significant difference through their reward and benefits strategies.

AWE had success in all three shortlisted categories – winning awards for Best Healthcare and Wellbeing Benefits, along with Best Mental Health Strategy, as well as receiving a commendation for its submission in the Best Benefits to Support Employees during the Pandemic (large employer) category.

The judges gave special mention to AWE's proactive and preventative approach to mental health, along with its overhauled occupational health service. Also recognised was AWE's proactive support for employees and their families throughout the pandemic, with consideration shown for the differing needs of those who could not work remotely and those who could.

Emergency booklet available online

Copies of the public information booklet advising what to do in the unlikely event of an emergency at AWE's Aldermaston or Burghfield sites are available online. If you would like to view or download a copy, then visit West Berkshire Council's website info.westberks.gov.uk/awe

An updated version was produced in response to new Radiation (Emergency Preparedness and Public Information) Regulations 2019 – also known as REPPiR 2019 – which strengthened the already robust national emergency

preparedness and response arrangements for radiological emergencies.

The booklet is produced by West Berkshire Council and AWE in conjunction with Hampshire County Council, Basingstoke and Deane Borough Council, Reading Borough Council and Wokingham Borough Council.

Inside, you'll find details about the extent of the emergency planning zones around the AWE Aldermaston and Burghfield sites, along with details of how you would be alerted and what actions to take.

AWE EXPERTISE AND

For they

During 2021, a number of people from AWE were recognised for their expertise and achievements...

INSTITUTION OF ENGINEERING DESIGNERS

Dave Castle was elected Chair of the Institution of Engineering Designers (IED) – the professional membership body for designers working in the fields of engineering and product design.

Commenting on his appointment, Dave said: "It is a great privilege to take on this position. The IED influences and inspires professionals the world over and plays a key role in advancing innovation and achievement.

"Design and engineering touch every aspect of our lives and also have an important part to play in meeting the significant challenges of our time, such as sustainability and climate change."

Dave Castle



are jolly good Fellows!

SOCIETY FOR RADIOLOGICAL PROTECTION

Scientist **John Bradshaw** was made an Honorary Fellow of the Society for Radiological Protection (SRP). The SRP is the principal independent professional body for radiation protection in the UK and its important work requires close interaction with regulators, including the Health and Safety Executive and Office for Nuclear Regulation.

John's expertise sees him join the fewer than 75 people that have been made Honorary Fellows since the society was founded. Over time, John's extensive knowledge has provided radiological protection advice on site, particularly with



John Bradshaw, right, being presented with his Honorary Fellowship certificate by SRP's Immediate Past President Pete Bryant

regards to radiological new builds.

To inspire future generations, John also supports AWE's schools outreach programme by discussing

the importance of science, technology, engineering and mathematics subjects to local students, plus future career options.



Alison Atkinson

ROYAL ACADEMY OF ENGINEERING

Chief Executive Officer and MD **Alison Atkinson** was elected a Fellow of the Royal Academy of Engineering. She was one of 69 academics, business leaders and innovators elected to the Fellowship for their outstanding contributions to engineering and technology.

Alison joined AWE in 2008 and before becoming CEO was AWE's Director of Infrastructure Projects and Delivery. In 2019, she was voted the sixth most influential female engineer in the UK and Europe by the *Financial Times*.

On receiving her Fellowship, Alison said: "I am delighted and humbled to be recognised by the Academy in this way. I look forward to working with the Academy and with other Fellows to continue to raise the profile of engineering as a field which offers fabulous opportunities to many talented people from any background."

INSTITUTE OF PHYSICS

Materials Physicist **Paula Rosen** was awarded Fellow status by the UK Institute of Physics (IOP).

This is the IOP's highest category of membership and was awarded to Paula following a rigorous application process involving an external sponsor and an independent review panel.

AWE works closely with partner institutions in the USA under the 1958 Mutual Defence Agreement via formal classified exchanges known as JOWOGs (Joint Working Groups). Paula was the first female JOWOG leader to be appointed at AWE and has inspired many female colleagues in physics and across the STEM arena.



Paula Rosen

The challenges of Covid-19 meant charities needed our help more than ever before – and AWE continued to support them through donations or individual fundraising...



Some of our hairy Movember fundraisers

Tash-tastic total raised

Some of our people took on a hair-raising challenge to raise money for the annual Movember fundraiser, which supports men's health projects.

Thirteen of them grew some impressive moustaches, resulting in the hairy fundraisers donating £785 to the charity. The monies raised will go towards research into a number of men's health issues and assist with breaking down the stigma attached to some of them.

To further boost the Movember coffers, members of the AWE Aldermaston Rugby Club also sprouted some facial hair to raise an impressive £2,660 and help the charity with its ongoing support.

Since 2003, Movember has funded more than 1,250 men's health projects around the world, with a focus on mental health, suicide prevention and testicular and prostate cancer research and support.



The AWE rugby team sporting their tashes

Partnership is Thriving

AWE is incredibly proud of its relationship with charity partner Thrive and the amazing work it does.

The Reading-based charity uses gardening and plants to improve the health and wellbeing of its clients who have a wide range of disabilities, health conditions and support needs, sensory loss or autism.

This is the third year Thrive has been AWE's charity partner.

A recent donation is going towards supporting general gardening sessions to help improve clients' confidence as well as their physical and psychological health.

This has allowed Thrive's team to nurture clients like Carly – who has now achieved her personal goal of using gardening equipment.



Thrive client Carly showing her strimming skills



AWE volunteers collecting donations

Donations spread seasonal cheer

To help spread some Christmas cheer, our people showed their generosity through the annual 'give a gift' collection, with toys, food, clothing and toiletries donated to worthy charities.

Food hampers went to Basingstoke Trussell Trust

Foodbank, the toiletries and clothes to Nishkam SWAT (Sikh Welfare and Awareness Team) homeless and community support teams and the toys to Barnado's.

Due to the generosity shown by everyone, it was decided that some of the distributions would

also be distributed via The Cowshed, a relatively new, local charity which provides support to people of all backgrounds in a time of personal crisis.

Volunteers organised the Covid-compliant collection and distribution of the donations.



Tasty treats are sweet success

Our people did us proud by raising a total of nearly £900 to support the annual coffee morning in aid of Macmillan Cancer Support. We enjoyed delicious cakes and cuppas – both on and off site – to boost the funds of the charity and its amazing work.

Charity helpline boosted by Charity Fund generosity

Our Charity Fund has made a £500 donation to Reading Mencap and its Family Support Service which helps local children and adults with learning disabilities and their families.

Mandi Smith, CEO of Reading Mencap, said: "AWE's donation will help towards running the costs of our helpline for families with learning disabilities, who have been disproportionately affected by the Covid-19 pandemic.

"We rely on the generosity of the local community and donations like yours to help fund our vital work."



Academic partnerships give access to world-leading research

Our partners in academia are vital to our mission and the national STEM agenda and AWE has a rich history of working with universities, through access to world-leading research and renowned academics.

AWE sponsors several key academics who provide a valuable resource in support of our strategic aims, either through their leadership of centres of technical excellence or in other roles.

DR DAVID PRICE



Congratulations were in order for Dr David Price, who was made Visiting Professor at the University of Reading's School of Chemistry, Food and Pharmacy, in recognition of his teaching and international reputation.

David works in Engineering and Science at AWE and has been associated with the university for more than 27 years, first as a postdoctoral research Fellow and later as a supervisor of AWE-funded postdoctoral researchers there. David also gives a yearly undergraduate course in computational chemistry at the university.

PROFESSOR TOM SCOTT

AWE, in collaboration with the Royal Academy of Engineering and the University of Bristol, has supported a Fellowship at the University of Bristol, led by Professor Tom Scott.

His research and eminence in materials science has contributed to AWE's work, in particular the development of radiation detection and mapping technologies.

This partnership has generated important research in nuclear forensics – a specialism that includes finding nuclear materials outside of regulatory control whether through theft, diversion, trafficking or terrorist activity – which enables identification and establishment of the material's origin quickly, safely and securely.



PROFESSOR JULIE YEOMANS



In 2021, Professor Julie Yeomans, from the University of Surrey, was awarded our prestigious William Penney Fellowship.

This award is only conferred to leading academics at UK universities, who work in fields relevant to our strategic defence.

An expert in the characterisation of materials in extreme environments, Julie is only the second woman to be granted this Fellowship. She is Director of the AWE-University of Surrey Centre of Excellence in Materials Ageing, Performance and Lifetime Prediction, launched in April last year.



Biodiversity boost for the environment

AWE helped primary pupils in Basingstoke with their environmental studies, and to encourage biodiversity in school grounds, we donated bird boxes and mini-beast homes.

Biodiversity is a crucial component of the

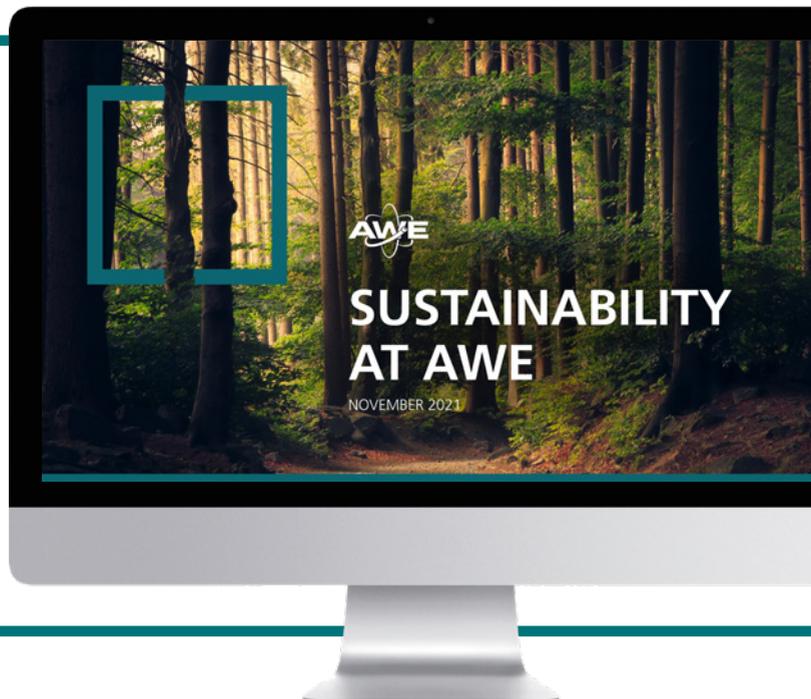
environment and is in decline globally. We're continually exploring ways to work more closely with local partners to identify opportunities where we can contribute towards enhancing biodiversity and wildlife sites in our surrounding communities.

Sustainability e-book launch

At AWE, we continue to be committed to improve our organisation's sustainability. But we also recognise there is more to do.

To show our intent, we've launched our sustainability e-book, highlighting what we've achieved to date and how we'll build on our efforts in the future.

The sustainability e-book is available in our online document library at www.awe.co.uk/document/





Blacknest has been monitoring seismic signals for 60 years

Blacknest celebrates 60 years of service

2021 marked 60 years of exciting research and collaboration at Blacknest – home to our Forensic Seismology team – where techniques have been developed to distinguish seismic signals generated by underground nuclear explosions from those generated by earthquakes.

This work is pivotal to the UK's verification of the Comprehensive Nuclear Test Ban Treaty (CTBT), which bans any nuclear weapons test explosion or any other nuclear explosion.

Throughout the last 60 years, Blacknest has made significant contributions to shaping the global

approach to nuclear test monitoring. Several generations of eminent scientists have helped Blacknest make significant advancements in the global knowledge of seismic activity detection, location and identification.

In the coming decades, there will of course be new challenges. The Blacknest team will continue to sustain and further develop the international effort in seismological monitoring so we can continually improve CTBT verification, increase confidence in the methods used, and continue to protect our world from nuclear threats.



Gender pay gap progress

In line with its requirement as a large employer, AWE has published its latest *Gender Pay Gap Report*. The report covered data for both 2019 and 2020 to meet Government publications guidance during the Covid-19 pandemic.

AWE continues to make progress in its gender pay gap since the last report in 2019, with a focus on enabling, mentoring and developing all its people to help them fulfil their potential. The report can be found in AWE's online document library at www.awe.co.uk/document/



Your comments and suggestions on Connect are always welcome – please email them to communityandschools@awe.co.uk

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