



connect

Forensics super lab is on the case

AWE has cemented its crucial role in nuclear deterrence by hosting a state-of-the-art nuclear forensics laboratory, which was officially opened by MP James Brokenshire.

Mr Brokenshire, parliamentary under secretary for crime and security at the Home Office, visited the company's Aldermaston site in May.

The conventional forensics analysis capability (CFAC) lab can receive radiological, nuclear and explosively contaminated evidence and analyse the evidence for traditional forensics.

Mr Brokenshire said: "I am delighted and proud to open the new CFAC laboratory at AWE Aldermaston.

"The successful delivery of this laboratory is as a result of the strong collaboration between the Home Office, our MOD colleagues and the AWE project team.

"This unique, world-class facility plays a major role in how we respond to nuclear and national security threats and sets international standards in incident response.

"It will make a significant difference to our understanding of forensics, helping us to bring to justice those people involved in

terrorism, ensuring we keep our country safe."

The laboratory means AWE will have a greater technical response capability in helping the Home Office investigate and prosecute terrorist use of an improvised radiological or nuclear device.

AWE will also have the forensic ability to trace the source of nuclear and radiological materials, by working through their unique chemical and physical "fingerprints".

Refurbishing an existing building at AWE and providing associated equipment has been sponsored by the Home Office and the Ministry of Defence. At times, AWE will be pooling its resources and expertise to support forensic specialists from the police, forensic science service providers and other organisations.

Graeme Nicholson, AWE's director of Science and Technology, said: "We are particularly proud that the work of the lab has been announced as this is an area of joint partnership between two government departments and AWE.

"The new facility will enable the UK to carry out conventional forensics techniques – such as fingerprinting and DNA recovery – on radiologically contaminated evidence."



James Brokenshire gets to grips with the new lab. Inset, Mr Brokenshire with, left to right, AWE's Gary Butler, Graeme Nicholson, Giles Graham and MD Andrew Jupp

Online *connect*... is that for you?

Connect is one of our staple publications and, we believe, a great way to keep you regularly informed of our work, progress and activities.

We're looking to change the way we deliver *connect* to you in future by producing it as an online publication available on our website www.awe.co.uk.

We would very much like to hear your thoughts about this planned

change and about the kind of stories or information you would like to see in the future. Our aim is regularly to update our community stories via the website.

Please contact us at connect@awe.co.uk if you have any comments to make about the planned change, or you want to be included on a mailing list for *connect*. Thank you for reading!

Warhead safety is at the heart of AWE's business and chief engineer Jim West is focused on providing assurance that the stockpile remains safe at every stage of its life cycle. Jim talks certification, keeping processes fresh and how transformation is making an impact...

Chief engineer Jim ensures stockpile health

As soon as one of AWE's investigations into stockpile health finishes, Jim and his team are working on how to enhance the next one. "We're continually looking to improve the way certification works," said the chief engineer, who assures the production of the Annual Assessment of Stockpile Health (AASH) for the MOD.

The vital report has the same intense focus on safety that is in place throughout every phase of the warhead's design, production and in-service operations.

The attention to compliance, standards and regulation is just as thorough beyond our gates as it is within, said Jim, who brings his expertise as the warhead design authority to the job of certifying the stockpile.

"I work on it with a 'virtual' project team of design, manufacturing and technical specialists from across our business," said Jim.

"We draw on evidence from the forensic analysis of deployed warheads, our science and technology programmes, the US support activities, our operations and those at the Royal Naval Armament Depot in Coulport.

"As you'd expect, warhead safety is of paramount importance and we have to meet exacting MOD standards.

"We're regulated by the Defence Nuclear Safety Regulator in a similar manner to that adopted by the Office for Nuclear Regulation for site and operational safety.

"We always get good feedback from all levels of the MOD on it and after each one we conduct a review, learn and improve activity," said Jim, who's been with the business for 44 years. "We also do SIAs – structured



Jim West... "warhead safety is of paramount importance and we have to meet exacting MOD standards"

improvement activities – facilitated by the operating excellence team."

The drive for excellence also includes benchmarking AWE's systems and processes with other leading engineering companies.

"I've been liaising with Rolls-Royce, Lockheed Martin and Culham Science Centre on systems engineering, which is something I'm very keen on as it represents a best practice approach to managing large complex systems such as the deterrent," said Jim.

"I'm also involved with the MOD in doing improvement activities on how we operate with them.

"It's early days yet for our own

transformation, but as part of it we've started developing important new project management arrangements for the stockpile."

Another aspect of transformation is establishing a mission assurance function reporting to managing director Andrew Jupp. The AASH will form a vital part of this.

Jim's proud of his association with the UK's deterrent and welcomes transformation's continued focus on its high-quality assurance.

"As always, we have to have an eye to the future and must make sure that supporting the stockpile through processes such as the AASH is done as effectively as possible in an ever-changing world," said Jim.

Stellar safety performance wins award

Project Aquarius, the rekit project for one of AWE's manufacturing facilities, has received a world safety award.

The award, presented by AWEML chairman John McLachlan, was won by the re-kit team for its outstanding safety performance.

Aquarius, employing more than 200 staff and contractors, completed a year without any "recordable" incidents – 445,000 hours with no injuries or accidents that resulted in any more than very minor first aid.

The project was chosen from hundreds worldwide as one of five construction projects in 2011 to win this award and was the only one in the UK.

Steve Frier, senior project manager for Aquarius, said: "It is a testament to the commitment and culture of the project team that we have now completed 1.4 million hours without a recordable incident."

John McLachlan said receiving the award was a remarkable achievement and one of which AWE should be proud.



Steve Frier receives the award from John McLachlan

Charity fund will help cut patient miles

A breast cancer survivor received a £1,000 boost to her charity from AWE's Community Committee.

Paulline Williams started raising money for a radiotherapy centre at North Hants Hospital after experiencing the gruelling trek backwards and forwards to Southampton for medical treatment.

Paulline, 77, from Basingstoke, successfully completed her treatment in 2005, but the memories of the journey to Southampton stayed with her.

She wants the same excellent treatment she received to be more readily available to people around the area of Basingstoke and Deane, so they don't

have to do an estimated 100-mile round trip.

She said: "This is a terrific boost to our cause, and we are very grateful to AWE for this donation."

RadCan (Radiotherapy for Cancer) achieved charity status last year, and is aiming to raise £22 million within the next four years.

Michele Maidment, secretary of AWE's Community Committee, said: "We're pleased to be able to give this help to RadCan, which has a fantastic vision and will help the local area immensely once it is realised.

"AWE aims to help both local and

national charities either through donations, like this, or with offers of practical assistance."

The presentation took place in the Mayor's parlour, at Basingstoke and Deane Borough Council's offices, as the Mayor, Cllr David Leeks, has chosen RadCan as one of his three mayoral charities for his year.

Cllr Leeks said: "A centre in North Hants would alleviate the need for people to travel great distances when their health is most vulnerable. To have this treatment locally could only benefit those receiving it and may also help with the healing process."



AWE's physics at work team gave a presentation to pupils at Highdown School in Reading

Wave makers' show impresses pupils

AWE supported several events during the British Science Association's National Science and Engineering Week.

This year's theme was *Our World in Motion*, something which AWE's physics at work team fully embraced to the delight of dozens of pupils at Highdown School in Emmer Green, Reading.

The pupils were impressed with the demonstration of sound and pressure waves with two experiments, one using exploding custard powder and the other making flame waveforms with a 1.5-metre gas burner called a Rubens tube.

The tube was attached to a speaker and pre-set sound frequencies were played through the tube to illustrate how sound waves affect the gas pressure within the tube and, therefore, the shapes of the flames.

Dr Sara Capaldi, curriculum leader for science at the school, said: "AWE has supported us over the last decade by providing money to enhance revision materials, mentors for the students and visits to the school to enrich curricular activities.

"We have a firm link with AWE and its outreach work is very supportive of the local communities. It's brilliant that they could join us here for the science fair."

Gareth Owen, who is part of the physics at work team, said the team was impressed with the positive reactions from pupils, and added: "I hope our demonstration will inspire pupils to become even more involved in science and question the reasons why observed phenomena occur in the universe."

Celestial Chloe...

AWE sponsored a trophy for The Hurst Community College at its Science and Technology Awards evening. The winner of the competition for best science project was 11-year-old Chloe Tyler for her entry on planets and the solar system.

Denefield win gold

The popular annual Girls Engineering Challenge was held at Tadley Memorial Hall.

The event saw pupils build a bridge to withstand a variety of weights and design a device which was capable of successfully catching an egg dropped from either one or two metres.

In the final task, the girls, aged 12-13, were challenged to build mini rafts which were judged on buoyancy and speed.

AWE's Zoe Lambden, one of the challenge organisers, said the tests showed the girls the importance in engineering of sticking to project timescales.

She said: "The tasks were designed to test and demonstrate different aspects of engineering, including innovation and ingenuity. It was great to see the students having fun and putting all their engineering skills into practice."

The winning school was Denefield in Tilehurst, and team leaders were presented with a gold trophy and a cheque for £300. The silver trophy went to The Kennet School in Thatcham.

The other schools which took part were: Little Heath School, Tilehurst; The Clere School, Newbury; The Willink School, Burghfield Common; and The Vyne Community School, Basingstoke.

Other prize-winners, praised for creativity, timekeeping and teamwork, received high street vouchers.

More than 300 young people a year vie for one of the 40 places at AWE's outstanding Skills Academy. And no wonder, the facility offers award-winning levels of training, leading to excellent careers within AWE and elsewhere. *Connect* joins the academy's 60-year celebrations...

Skills giant celebrates 60 years of achievement



Maintenance apprentices Oliver Abbott, Owen Taylor and Jordan Moat



AWE MD Andrew Jupp chats with apprentices Jack Frank, right, and Dan Hargood. Instructor Kevin Kerr is in the background



The 1956 intake of apprentices



Paul Gardiner with Councillor Keith Gilbert, who now sits on the Local Liaison Committee. Keith was one of AWE's first apprentices, joining in 1953



Councillor Pat Garrett with mechanical maintenance apprentice Jordan Moat

AWE's award-winning Apprentice Academy has celebrated 60 years of sponsoring and developing the company's young engineering talent.

During that time, whether in the field of electrical maintenance, electronic/control and instrumentation, precision machinist and mechanical maintenance, more than 4,000 young men and women have successfully completed their apprenticeships at AWE.

To celebrate, the academy opened its doors for two days to apprentices past and present and their families. There was an exhibition demonstrating the academy's history and its role in the future development of young people, as well as an opportunity to take a tour of the academy and hear from the apprentices themselves.

Each year, AWE has more than 300 applications with an intake of around 40 young people.

Today, more than 550 former apprentices (about 10 per cent of the workforce) still work at AWE, many in managerial and supervisory roles.

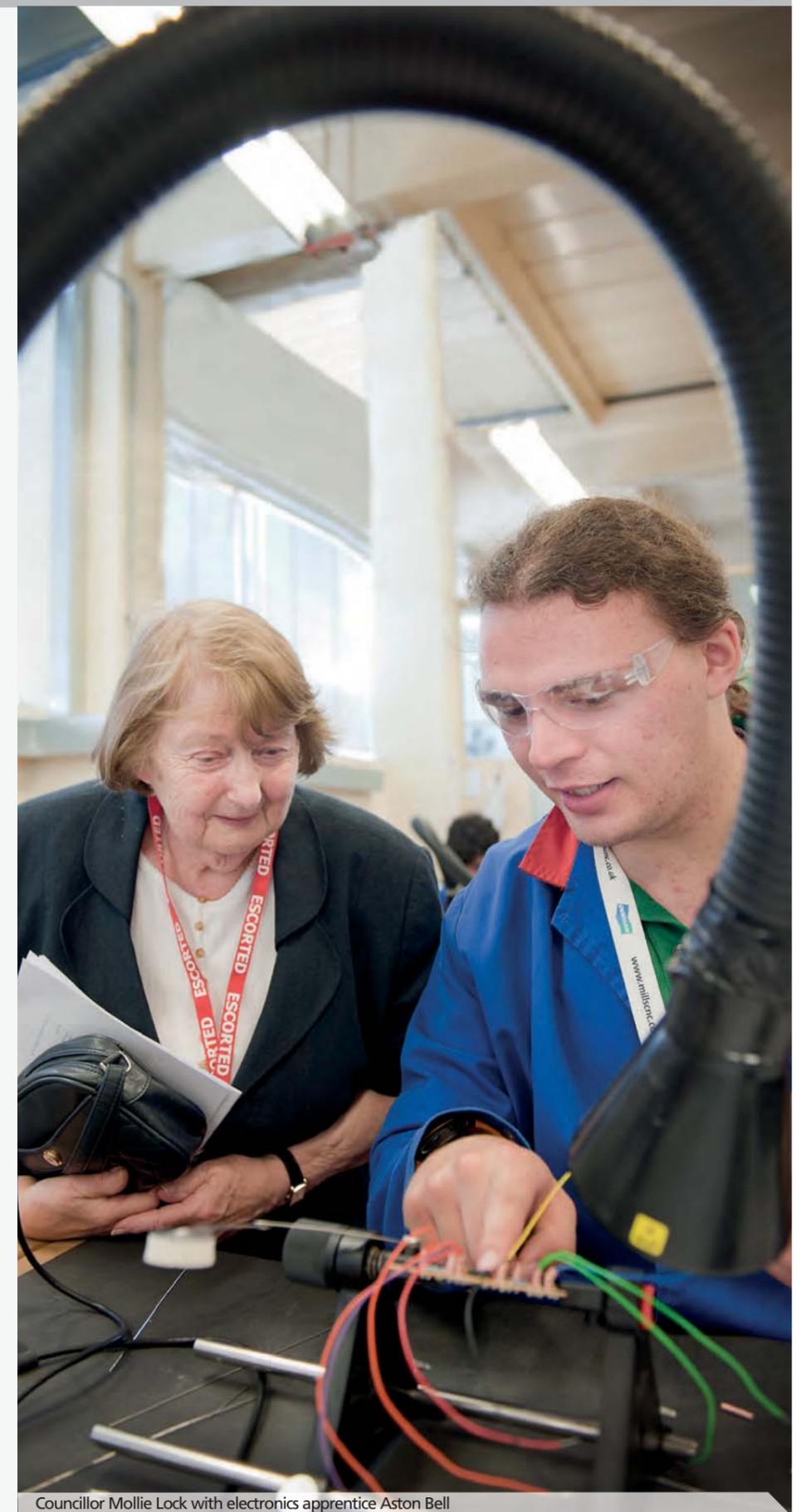
The newly-named Skills Academy, formerly known as the Apprentice School when it opened in 1952, is now regarded as one of the UK's leading apprentice academies, receiving numerous accolades and awards.

AWE's academy was voted Employer of the Year 2009 at the Learning and Skills Council's South East awards. Other accolades have included the award of Beacon status in 2009 and achievement of outstanding provision (Grade 1) by Ofsted in 2008.

Over the years, apprentices have also been recognised individually in both the male and female Apprentice of the Year Award categories for their outstanding abilities and performance.

Final-year electronics apprentice Justin Woodley was voted the South East's top nuclear apprentice by the National Skills Academy in 2009 and, this year, apprentices Jude Brunskill and Andrew Boulton have been named as winners in the West Berkshire Learner Achievement Awards 2012 in the returning to learning and determination categories.

AWE's head of facility services Sian Butler



Councillor Mollie Lock with electronics apprentice Aston Bell

said: "At AWE we believe in maximising the potential of everyone who works on our sites. Our award-winning apprentice academy is a great example of this approach, with many of those who start their careers here going on to

hold senior roles within the business. "The academy has won well-deserved external recognition for its achievements too and we are proud to be associated with this success story which began 60 years ago."

RoSPA rewards AWE prevention approach

AWE's approach to the prevention of accidents and ill health has been recognised in this year's RoSPA Occupational Health and Safety Awards.

The company was commended in the National Defence Sector at the awards ceremony at the Hilton Birmingham Metropole Hotel.

Julie Taylor, director of Environment, Safety, Health and Quality, said: "Recognition from a respected body such as RoSPA is real testimony to AWE's ongoing commitment to delivering excellence."

Paul Rees, who picked up the award on behalf of AWE, said: "This award clearly reflects our commitment to achieving the highest level of health and safety performance."

David Rawlins, awards manager at RoSPA, said: "The RoSPA awards programme provides well-deserved recognition for the winners and spurs on other organisations to raise their standards of accident and ill health prevention."

"We congratulate AWE on its success and encourage it, and all our other winners, to remain committed to safety and health, an approach that is well recognised to be good for workers and the bottom line."

AWE's construction management



AWE's head of health and safety Paul Rees and senior safety adviser Jim Connochie with the award

department is also celebrating success after being awarded the RoSPA Gold Medal – awarded to those who achieve five or more consecutive Gold Achievement Awards – for the second year in a row.

One of AWE's business partners Emcor was

also awarded the RoSPA Gold Medal.

Bob Collings of Emcor said: "We are thrilled to receive the RoSPA Gold Medal. This is testament to the commitment of our team across site to ensure a safe working environment for all at AWE."

Top-performing projects win nationals

Three of AWE's major projects have been recognised as Considerate Constructors at a national awards ceremony.

Circinus, AWE's high explosives fabrication facility, and Mensa both achieved Gold awards, while Pegasus received a Bronze award.

Representatives from all three projects attended the Considerate Constructors National Sites Award Ceremony at the

Plaisterers' Hall, London.

"The Considerate Constructors Scheme is an important initiative that operates voluntary site and company codes of considerate practice, with which participating construction companies and sites register," said Clive Bacon from Project Circinus. "The aim is to improve the overall image of construction."

"From the thousands of sites registered

with the scheme, only the top-performing 7.5 per cent are nominated to receive a bronze, silver or gold award. We are very proud to be among those top-performing sites."

- Mensa is the replacement assembly and disassembly facility, while Pegasus is AWE's replacement facility for the handling and storage of enriched uranium.

French connection Karen enjoys cultural challenge

Karen Amram is AWE's French connection – the vital link to the company's partner organisation in France for the UK's share of the joint Teutates hydrodynamics project.

"I represent the Commissariat à L'Energie Atomique et aux Energies alternatives – Direction des Applications Militaires (CEA DAM) on the programme" said Karen, who moved to London with her family for the posting last autumn.

The groundbreaking project – the first co-managed MOD, AWE and CEA DAM defence collaboration – involves building a technology development centre at Aldermaston and a hydrodynamics facility at Valduc in eastern France.

"As both countries will share the facilities, we have to make sure they meet both French and UK requirements," said Karen, a senior CEA DAM manager and scientist.

"Teutates is very important for both countries and it's a great honour to be involved. Being integrated into the British team enables me to connect our ways of working and facilitate communications for both sides."

Harmonising the different work approaches and supporting communications means Karen works in English almost all the time. She enjoys the challenge of living with another language and culture, as do her family.

"I read a lot in English to help me and the fact my husband studied here and already speaks it well motivates my improvement," says Karen.

"Our two eldest are doing well in it at school and even our two-year-old's learning both languages – one of her first words was Stilton!"



Karen Amram works in English almost all the time

Platinum partnerships help work relationships

Excellent working partnerships are key to AWE's success – both internally with colleagues and outside the company.

An initiative aimed at strengthening relationships with AWE's supply chain is part of the current transformation process.

Called platinum partners, the programme is designed to bring benefits to both AWE and its

main suppliers. Part of this development has involved challenging suppliers to come up with ideas of how they can work better with the company to help transform the business.

The introduction of platinum partners is just one of many new ways of working introduced within Liz Butler's team.

"Having a secure and effective

supply chain is critical to the services AWE provides," says Liz, who heads the supply chain management team.

"Approximately 65 per cent of our turnover is invested in our suppliers. We deal in various marketplaces, from scientific research to manufacturing and construction, and in each we have different relationships.

"We categorise our supply chain from the more transactional relationship, dealing with low-spend items, through to a small group of about 50 suppliers strategic to our business.

"Platinum partners is about providing an environment where AWE and the supply chain work together to improve our businesses; developing beyond our contractual relationship."

The team has worked in partnership with its suppliers in numerous ways, including developing technology – like

enhancing the Oracle-based enterprise resource planning system.

The diversity of the multiple marketplaces dealt with is a major challenge faced by the supply chain team, which not only manages those involved with supporting AWE's ongoing defence and nuclear security programme but also contractors involved with new areas like the major construction programme across both sites.

"There are strict standards set by external regulators and we need processes to ensure we comply fully," says Liz.

"When we bring any contractor on site, there are stringent assessment criteria for selecting those suppliers, as well as rigorous rules they have to work under while here.

"It is about always ensuring every operation we undertake is safe and secure."



Liz Butler heads the supply chain management team



Life-saving service given 'amazing' £10.5k boost

A generous donation from AWE will help the work of The Thames Valley and Chiltern Air Ambulance (TVACAA) and the thousands of volunteers who help and assist the charity in its fundraising activities.

Katie Whelpdale, TVACAA's Berkshire fundraising manager, said: "I was speechless when I saw the amount raised – I really didn't expect so much.

"It is an amazing amount and is very gratefully received and will do so much to keep this life-saving service operating in Berkshire, Oxfordshire and Buckinghamshire. Thank you."

AWE's Community Committee presented the cheque for £10,563.80 on behalf of the company and staff after the service was picked as a charity of the year.

Michele Maidment, secretary of AWE's Community Committee,

said: "The work of the air ambulance is hugely important and often only appreciated when an individual has real need of its service. We're delighted to be able to support them in this way."

One of the paramedics is Joanna Jefferies, who has worked for the service for three years. She applied for the post after 10 years of frontline ambulance service work.

Joanna said: "We were delighted to accept your cheque and enjoyed hearing about the great fundraising efforts of the AWE staff.

"The air ambulance is a fantastic resource that we are immensely proud of and are grateful for the generous donations that allow the service to continue serving within Berkshire, Oxfordshire and Buckinghamshire."

With the AWE cheque are, left to right, pilot Ges Charlton, Katie Whelpdale, paramedic Joanna Jefferies, AWE fundraiser Jim Cronogue and paramedic Lee Mayne

Garden group is Mick's pick

A charity which uses gardening to change and improve the lives of disabled people has been given a boost of £1,000.

Thrive, a small national charity with its headquarters in Beech Hill, Reading, uses the process of gardening to help its clients transform their lives.

It offers help and support to those who want to garden at home, or who have access to a plot, or who may want to access structured horticultural therapy programmes.

Sue Tabor, Trunkwell Garden manager at Thrive, said: "We are extremely grateful to AWE for this generous donation.

"This year will be

another financially challenging year for everyone. We remain committed to our disabled gardeners because we know how horticultural therapy works simply by witnessing the changes in the many people who come to us, and how they move on in their lives. Whatever their disability, we know we can help."

The charity was nominated by Mick Dennison, from AWE, whose wife Helen is a volunteer worker at Thrive.

Mick, a configuration control engineer, said: "Thrive is an amazing place which supports people of all ages with all kinds of disabilities."



The AWE volunteers at Saxon Wood School

Volunteers complete 'perfect day'

A group of AWE volunteers spent a day helping out at a Basingstoke school for children with severe mental and physical disabilities.

It was the fifth year a team from Production Operations had lent a hand to Saxon Wood School as part of a community project.

"It was a perfect day in every sense," said Mick Ogle, who was this

year's project organiser. The weather was excellent and the school was extremely grateful for what was achieved.

"Our volunteers carried out general tasks around the gardens, supported by a team from Emcor, and County Tool Hire of Tadley once again supplied equipment for the work, free of charge."



Mick Dennison, second left, presents the cheque to Sue Tabor and some of Thrive's clients