



Nissan Manufacturing UK

A driving force for STEM education

Nissan Manufacturing UK has been leading the way in showcasing the art of manufacturing to young people.

In October 2014 Nissan announced a major expansion of its schools engagement activities in the UK, using electric vehicles, motorsports and its manufacturing excellence to excite thousands of young people about careers in industry.

A range of workshops, competitions, practical activities and facility tours will see more than 15,000 students experience the innovation and excitement of 21st century automotive design, engineering and manufacturing over the lifespan of the project.

The Monozukuri caravan programme is based on a model developed at Nissan's HQ in Japan but has been tailored to match the curriculum for UK primary schools and involves "learning through doing".

The programme is a great example of The STEM Alliance – which brings together further education and industry to develop a higher level of competence, confidence and collaboration in STEM teaching and learning, to inspire and equip the next generation of engineers, scientists and technicians with the skills to succeed – in action.

Each school undertakes a project covering the history of the car industry in the UK before a visit to Gateshead College's SASMI (Skills Academy for Manufacturing and Innovation) where Nissan conducts much of its skills training.

The Year 6 Primary school pupils (10 and 11-year-olds) take part in a hands-on Lego production line, competing in teams to build a model car as quickly as possible.

It looks at teamwork, removing waste, making improvements and quality. They then get an opportunity to work with actual tools.

Nissan is also running a number of smaller, more intensive programmes including the *Industrial Cadets* for pre-GCSE pupils (Year 9 13-14 year olds) offering them the chance to tackle hands-on real life industrial and science-based challenges.

"We set out to create a unique and exciting opportunity for children to discover how Nissan manufactures high-quality cars at high volumes, and to take part in activities which normally would not be available to them. We look at how Nissan makes things safely and the children get the opportunity to use actual production tools. They get particularly excited when the box of hammers comes out, and really enjoy removing a dent from a metal panel – a very popular and noisy exercise!"

Ian Green

Nissan Senior Training Controller



Left to right: Chad Bowman and Dawson Robinson from Swalwell Primary School



Again the aim is to highlight the importance of STEM subjects and the practical application within the automotive sector, and to showcase the full range of careers available within engineering.

Students undergo a factory tour and meet young graduates from different departments - Engineering, Finance, Production, Maintenance (apprentices), Information Technology, Production Control and Human Resources.

This is followed up by 5 days production simulation, whereby the youngsters are split into two teams in a classroom workshop and compete to set up a factory, develop and improve methods, establish production layouts and resolve quality concerns. Each successful participant receives a certificate on completion.

Mr Green added: "Our Industrial Cadets programme explains the different career paths available in manufacturing. It gives young people the opportunity to learn about life in a modern manufacturing environment, whilst promoting interest in science, technology, engineering and maths."



Nissan Sunderland Plant HR Director Adrian Smart with Louise Pharaoh (left) and Danika Lee Scott from Swalwell Primary School

The schools which have already visited Nissan include Swalwell Primary School in Gateshead, whose Deputy Headteacher Peter Hampson said: "The children love coming. They gain so much from the experience they have here with Nissan. They learn teamwork skills, they learn all about the possibility of careers in industry, they learn about the production process and they just really love every single second they spend here.

"It's really interesting for both the boys and the girls to see what's available, to find out what fantastic opportunities there are and therefore to think how they may like to plan their careers."

One in three cars built in the UK is a Nissan. More than £3.5bn has been invested in Nissan's world-renowned Sunderland Plant, which exports 80% of production to more than 130 markets.

Other UK operations include Nissan's European Design Centre in Paddington, London, Nissan's Technical Centre in Cranfield, Bedfordshire, and Nissan's UK Sales and Marketing headquarters in Rickmansworth, Hertfordshire. Through these sites and in UK dealerships Nissan currently employs over 11,000 people in Britain, supporting a further 26,000 jobs in UK suppliers.



Nissan's Martin Abele with (left to right) Joseph Wharrier and Bethany Cordon from Swalwell Primary School

"It gives young people the opportunity to learn about life in a modern manufacturing environment..."

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