

**TEACHER OF
ENGINEERING,
DESIGN AND
TECHNOLOGY**

**JOB
INFORMATION**



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TEACHER OF ENGINEERING, DESIGN AND TECHNOLOGY

Newcastle upon Tyne Royal Grammar School

Required from September 2025



THE POSITION

We have an opportunity for a qualified teacher of Design and Technology to join our dynamic and successful Engineering, Design and Technology Department from January - working with students from Year 7 through to A-level/Oxbridge. This post would suit a new entrant to the profession, or someone seeking to broaden or deepen their experience. There is flexibility in the department for this post to be of interest to applicants with specialisms in design engineering (including electronics) or product design.

Being 'willing to go the extra mile' is a major part of the role for all teachers at the RGS, not merely in specialist activities, but in a vast range of extra-curricular sporting, artistic and cultural work. We are keen to invite applications from those who would like to make their own distinctive contribution to this ethos. We very much value colleagues who are willing to contribute to our co-curricular program.

This post is suitable for a range of applicants, including ECTs and experienced teachers. The RGS has its own generous salary scale and provides ECTs with an appropriate program of induction leading to QTS, valid in both sectors.



Job Information: Teacher of Engineering, Design and Technology

Closing Date: 9.00am Monday 17th February 2025

Contact: Head of Science and EDT (p.heath@rgs.newcastle.sch.uk)



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THE SCHOOL

In 1525, the Mayor of Newcastle, Thomas Horsley, wrote his will, in which he generously gifted his estate to fund a grammar school. Five centuries later, Horsley's vision lives on in the Royal Grammar School, Newcastle's corridors and classrooms, and his philanthropic spirit drives the RGS's commitment to education.

Few schools can claim a 500-year history. Over the years, the RGS, has continued to flourish as the premier independent school in the North East of England and as one of the country's leading schools - consistently topping the regional table for academic excellence.

Today, RGS is a fully co-educational school with over 1,300 students aged 7-18 (Years 3 to 13). Its academically selective places are highly sought after. The school has more than 250 students in the Junior School, which shares the same outstanding site as the Senior School. Its Sixth Form is one of the largest in the independent sector, with more than 340 students.

While RGS prides itself on academic excellence, the school is also known for its emphasis on a holistic education. The school's 'There's More to Life' approach informs its holistic education, which is central to students' success, health and happiness.

RGS is based in the heart of Newcastle, immediately opposite Jesmond Metro station. The school occupies over 30 acres of land and has state-of-the-art facilities, including five brand new art studios, a new library, a modern Sixth Form Centre, a 25m swimming pool, two Sports Halls, a Performing Arts Centre, outdoor football/rugby pitches at Mooracres, an artificial turf pitch for hockey and the former County Cricket Ground.



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Academic Success

RGS is a special place, known and respected throughout the whole country as well as the North East. It's a place where aspirations are high, results are outstanding, and opportunities are endless. Our students go on to study highly selective courses at the most sought-after universities but also leave the school realising that life outside the classroom has been equally beneficial.

In 2023, RGS was named 'Independent School of the Year' overall in The Telegraph Group's national awards. Most recently, the school was again named North East Independent Secondary School of the Year for Academic Excellence 2025 by The Sunday Times' Parent Power Schools Guide.

Academically, the school is highly selective. Students are assessed for entry at the key entry points (Y3, Y5, Y7, and a handful at Y9, plus Sixth Form). The biggest entry points are Y3 (60 students), Y7 (c.75 students) and Y12 (c.45 students). Beyond the academics, in Junior School (Y3-6), entry is assessed through activity days, whilst at Y7, students are assessed through online tests and an interaction day. Sixth Form entry is through interview only.

Students sit baseline tests in Y7, Y10, and Y12 – the average GLA CAT score for both the current Y7 and Y12 is 117. We have several students who have the assistance of our dedicated Learning Support Team, which works across Junior and Senior School.



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Co-curricular Activities

At RGS, students can choose from over 170 co-curricular activities, ranging from music, drama, and sports to unique options like e-sports and knitting. All students are encouraged to discover what excites and inspires them.

Sport is also a central part of life at RGS, with students actively participating in a variety of activities including hockey, cricket, and basketball, from early morning until late afternoon. RGS views sport as a fundamental vehicle for students to develop lifelong skills, character, resilience – and, above all, a love for daily movement.

While it may seem tricky to balance schoolwork with so many exciting co-curricular and sporting activities, RGS has found that students actively engaged outside the classroom often perform even better academically. Both programmes are designed to help students develop essential life skills, from self-awareness to decision-making and self-organisation.



Pastoral Care

We understand that all of our students are unique and different, and we strive to treat them as individuals, aiming to tailor our care to meet their needs.

That is why pastoral care is another critical cornerstone of RGS's holistic approach. Student well-being is embedded throughout school life, from a dedicated Form Teacher and an allocated Tutor to easy access to the school Medical Team and counsellors who work together to help students reach their full potential.

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THE ENGINEERING, DESIGN AND TECHNOLOGY DEPARTMENT

We enjoy a location that is close to Art and Design, Computer Science, Maths and Physics. The physical proximity of these subjects reflects our firm belief that all contribute to developing students' design and engineering skills.

Our teachers need to be sparky and enthusiastic, innovators themselves with real passion and with the desire to inspire children. Staff are expected to teach across all year groups, and we value a high degree of independence, enabling teachers to utilize classroom practices which play to their strengths.



Year 7 and 8 students have one lesson of EDT per week and teaching groups comprise 16 or 17 students. The Key Stage 3 program of study includes design engineering modules in electronics, programmable devices, and mechanisms, as well as a range of product design modules such as our Desk Tidy and Candleholder projects. A stand-alone skills module features in Year 7 to develop students free-hand sketching, drawing and graphic presentation skills. We operate a three-way carousel in Years 7 and 8.

EDT is optional for Year 9, our GCSE foundation year, and students have a choice of pathway; Design Engineering or Product Design. We currently have five teaching groups in Year 9 with a total of 80 students. Design Engineering students have a mechatronics module featuring VEX EXP robotics design challenges, they also design and make an electronic toy, and they develop a range of computer aided design skills to design and simulate electronic circuits. Manufacturing and prototyping features laser cutting and 3D printing. Product Design students undertake a multimedia lighting design project, with an emphasis on developing communication skills, modelling and making skills with a range of materials, tools, and machines. They learn about disruptive technologies and develop 3D CAD skills with Autodesk Fusion and use these to create models for 3D printing and pewter casting.

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At Key Stage 4, Design Engineering students are currently following the CIE IGCSE Design and Technology: Systems and Control specification, and the Product Design students are following the CIE IGCSE Design and Technology: Systems and Control specification. From September 2025 Design Engineering students will follow the WJEC GCSE Electronics course. We currently have four teaching sets in Year 10 and three in Year 11. In the Sixth Form we offer students the OCR Design and Technology: Design Engineering and Product Design courses, which involve an element of co-teaching. We currently have twelve students in Year 13.

The RGS is one of the leading schools nationally in terms of Arkwright Engineering Scholarship success: in the past two years 13 students have been awarded full scholarships.

The department also plays a pivotal role for the school in the Engineering Education Scheme, Formula 1 in Schools, Scalextric4Schools and Vex V5 Robotics challenge. Teams regularly compete at both regional and national level. In 2024 twenty-five students across Years 10 to 13 competed in VEX V5 Robotics, with four teams competing at the national finals in Telford. We have our own F1 in schools track and VEX arenas. We have hosted VEX V5 regional competitions and scrimmages over the past couple of years.



The department operates to the BS4163:2021 health and safety standard, which is under constant review. All members of the department have current Design and Technology Association (DATA) Health and Safety training certification. In addition, the department is working towards the 'DATA Mark' of excellence for Design and Technology teaching.

The department is friendly, supportive, and collaborative. We share our practice and ideas, but we encourage individual innovation, and do not adopt an over-prescriptive approach. All of us work from departmental schemes of work, but we are all encouraged to adapt and add to them. The successful candidate will have a love of the subject, will be able to bring their creative initiatives, and will want to function as a member of the departmental team.

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TEACHING SPACES AND RESOURCES

The department operates across four locations in the Science and Technology Centre (STC) and all spaces are equipped with Prowise interactive display boards. There are two inter-connected workshops, one VEX Robotics and CAD suite, and one design engineering studio workshop. The workshops are very well-equipped, and the department can undertake work in all structural materials such as timber, metal, and plastics. Department offices are located between the two workshops. The VEX Robotics and CAD suite has permanently installed VEX Exp and V5 arenas, and a class set of widescreen computer monitors for students to dock their Microsoft Surface Pro devices to expand their workspace. The design engineering studio is where most electronics and programming lessons take place.

The department has two part-time technicians/instructors that provide lesson support, instruction, resource manufacture and preparation, as well as the usual maintenance and monitoring of equipment, tools, and facilities.

A healthy level of funding allows continued access to a range of good quality equipment to support practical work. The Engineering, Design, and Technology department fields an impressive array of tools, apparatus, equipment, and machinery. For example, we have a large CNC flat-bed router capable of accommodating a full 8' x 4' sheet of material and two high-power laser cutters able to process up to A0 size materials, such as acrylic, MDF and plywood.

The department has both MIG and TIG welders plus a manually operated plasma arc cutter. It also operates seven 3D printers, and a 3D Scanner.





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2024 EXAM RESULTS

Public examination results are consistently strong.

GCSE	9	8	7	6	<6
Design Engineering	57%	29%	9%	0%	5%
Product Design	64%	18%	18%	0%	0%
A Level	A*	A	B	C	<C
Design Engineering	100%	0%	0%	0%	0%
Product Design	0%	0%	100%	0%	0%



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PERSON SPECIFICATION

The following person specification indicates those areas of skills and personal characteristics, qualifications, training, and experience that we are looking for:

Qualifications and Training

- Experience of teaching in a highly academic context.
- Experience of teaching the full 11-18 age range.
- Experience of teaching GCSE or IGCSE Electronics, Product Design, Resistant Materials, Systems and Control, or the current single title GCSE Design and Technology.
- Experience of teaching A level Product Design or Design Engineering.

Skills

- Ability to think originally and creatively and show initiative.
- Commitment to high standards of teaching and learning.
- Ability to teach high quality lessons.
- Excellent organisational abilities.
- Excellent project management skills.
- High levels of IT competency, with strengths in the use of 2D and 3D CAD software.

Personal Characteristics

- Ability to work in a fast-paced environment.
- Ability to communicate effectively with parents, students, and staff in a variety of ways.
- Understanding of, and commitment to equality of opportunity for all
- Understanding of, and commitment to the ethos of the school as a community
- Tact, discretion, and diplomacy
- A genuine liking of people and the ability to show warmth, good-humour, empathy, and sensitivity.
- Willingness to lead and take part in fieldwork activities often outside school hours and at weekends.



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LIVING IN THE NORTH EAST

Whilst the North East is beloved and popular with so many, we know that not everyone will have had first-hand experience of it, so this is a short introduction to a city and region which we love and believe you will too. Newcastle is a medium-sized city with an historic centre and a vibrant life of its own. There's culture and arts in the form of the award-winning BALTIC Art Gallery and The Glass House, alongside several theatres that attract national touring productions. There's music from classical to club and we are home to the Royal Northern Sinfonia. There is also a growing food culture with some fantastic restaurants.

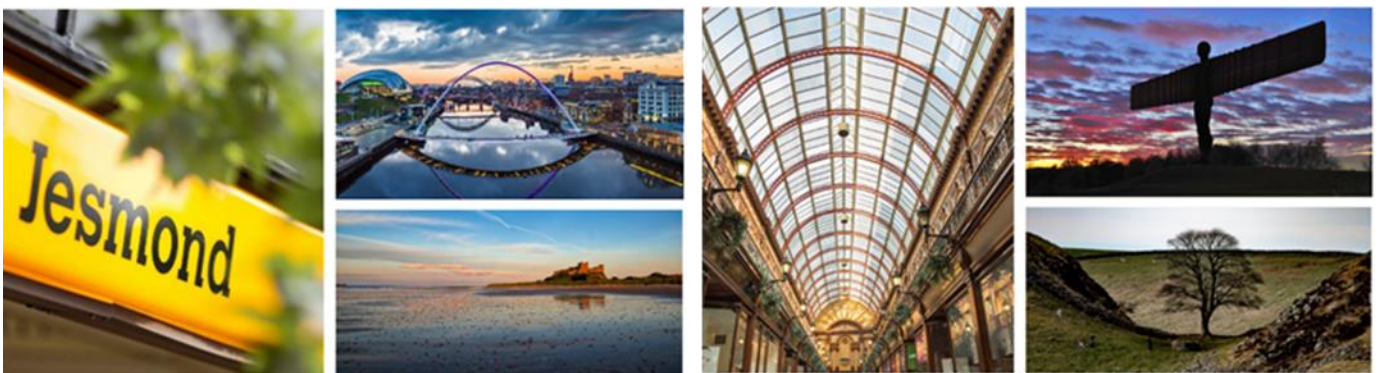
If you like sport then there's certainly no shortage of top-class entertainment: from Premier League football being played at St James' Park and EFL at the Stadium of Light to first class cricket at Durham (a mere half hour away), and great rugby at the Falcons, not to mention basketball and even ice hockey, and then there is the annual Great North Run. The North East has also produced some of the country's finest athletes in track and field and there are clubs aplenty to get involved with, most famously in Gateshead.

The coast and the hills are minutes away from the city centre. By car you can be in the middle of nowhere in 45 minutes, the Scottish Borders is only an hour away and the Lake District an hour and a half. The coast is served by the Metro (our version of the Tube), but some of the country's best beaches are up the road in Northumberland, less than 40 minutes by car. There's mountain biking, road cycling, climbing, and endless hill walks in stunning countryside. There are green spaces all over the city too, with plenty of parks for children and dogs alike to run around.

There are three local teaching hospitals, two universities in the city with another three close by. Some pioneering medical work goes on at the RVI, Great North Children's Hospital and the Freeman Hospital.

History abounds with more castles than you could count and sites of interest for almost every period of English (and border) history. Add that to a proud, independently minded, and very friendly local population and we have most things you could want.

There are excellent primary schools in the region and city as well as some good secondary schools too, but staff do get a discount at the RGS. There are also a number of good competitor independent schools as well.





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MAIN TERMS AND CONDITIONS

- This is a permanent, full-time post which will commence in September 2025
- Working hours will be those necessary to carry out the duties of the post.
- The role will report into the Head of EDT.
- Salary - The salary will be determined by the RGS Teachers' Scale.
- The Teacher will be required to comply with a range of RGS policies, particularly those regarding Data Protection, use of ICT facilities, Child Protection, Staff Code and Health and Safety, copies of which will be made available.



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WHAT WE OFFER

- During term-time, staff are provided with a free lunch, if on site.
- The school offers an alternative to the TPS, The Aviva Pension Trust for Independent Schools (APTIS) which is a defined contribution and salary exchange scheme administered by AVIVA. There is provision for life assurance and income protection under the APTIS scheme and increased flexibility regarding employee contributions and fund management. Further information on the APTIS scheme and salary exchange will be made available on appointment.
- The employee will become eligible for sick pay under the RGS Teachers Staff Sick Pay Scheme. Details of the scheme will be provided on appointment.
- As with all RGS employees, the employee will be encouraged to become involved in the wider life of the RGS community.
- Ongoing educational support and development of all staff with the provision of external and internal training courses, and our middle leaders training programme for existing and aspiring managers.
- Opportunity to see free school productions in the Miller Theatre located in our Performing Arts Centre.



- Free use of a well-equipped gym, fitness suite and swimming pool.
- Access to our onsite confidential counselling service.
- Access to the school's library service and a wide range of reading materials.

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- We offer access to the school medical team (1 doctor and 2 nurses) for triage medical advice and free flu vaccinations.
- Invitation to join staff clubs and wellbeing activities during term-time.
- Staff social events throughout the year.
- Supportive and friendly community.
- Opportunity to join in with RGS tradition and become a member of the Stowell, Collingwood, Horsley, or Eldon House.



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HOW TO APPLY

Candidates are advised to read the 'Information for Applicants' with particular care before applying.

If you have any queries or would like to arrange a visit to the school, please do not hesitate to email or to call Phil Heath (Head of Science and EDT) on 0191 281 5711 or email p.heath@rgs.newcastle.sch.uk.

Please visit www.rgs.newcastle.sch.uk/join-us/work-with-us to access our application form and further information for applicants.

To apply for this post please submit the following to jobs@rgs.newcastle.sch.uk by the closing date:

1. A covering letter and
2. A fully completed RGS application form.

Note: You must complete the application form, even if you want to also attach a CV.

The closing date for this role is 9.00am Monday 17th February 2025

Interview Information

Interviews will be held shortly after the closing date. We will hope to make the appointment as soon as possible following interview, offering the post and gaining acceptance, so applicants should arrive for interview with a clear idea of what would be involved in moving to the area (if necessary) and working at the RGS.

Reasonable travel expenses will be considered to attend an interview if candidates live outside the local area. This is normally up to a maximum contribution of £100 on provision of receipts. If your expenses will be significantly higher than £100 and an overnight stay is required, please note all expenses will need to be booked and approved in advance. If you plan to claim expenses, please contact the Head's Secretary, Sandra Ellis S.Ellis@rgs.newcastle.sch.uk in advance of your interview, who will talk you through the policy and advise on eligibility for reimbursement.

Safeguarding and Safer Recruitment

RGS is committed to the safeguarding of children and promoting the welfare of children and young people and expects all staff, volunteers and those working in school to share this commitment. The school applies the Government's Keeping Children Safe in Education Safer Recruitment procedures to all candidates including appropriate pre-interview checks on shortlisted candidates and pre-employment checks pending any offer. More information regarding the checks can be found in our Information for Applicants [here](#), and '[Keeping Children Safe in Education](#)' (September 2024)

Equal Opportunities

We are looking to appoint staff from a wide variety of backgrounds. Not just because it is the right thing to do but because at the RGS we recognise that those different experiences provide fresh perspectives, opportunities to challenge existing beliefs and provide opportunities to act as excellent role models for our diverse student body.



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We are committed to creating an inclusive and diverse school culture and our staff are at the heart of this. We are proud to be an equal opportunities employer, and all qualified applicants will receive consideration for employment regardless of neurodivergence, age, disability, sex, gender reassignment, sexual orientation, pregnancy and maternity, race, religion or belief and marriage and civil partnerships.

We strive to achieve a diverse workforce, fully representative of our pluralistic society and the ethnic make-up of the student population in the UK. People of colour are under-represented on our staff team. We are keen to attract applicants from a diverse pool of candidates and determined to be a fully inclusive employer, and a great workplace for people of Black, Asian, and ethnic minority heritage as well as White heritage.

We encourage all candidates to complete an 'equal opportunities' form with your application. This will be sent directly to the HR team for monitoring purposes.

CONTACT DETAILS

Royal Grammar School Eskdale Terrace Newcastle upon Tyne NE2 4DX

Tel: 0191 281 5711

General enquiries: communications@rgs.newcastle.sch.uk
Phil Heath (Head of Science and EDT) p.heath@rgs.newcastle.sch.uk
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