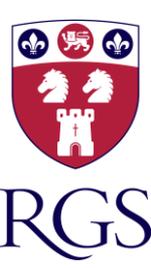
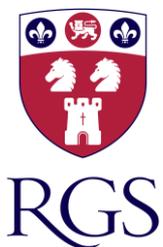


**ENGINEERING,
DESIGN &
TECHNOLOGY
TECHNICIAN
JOB
INFORMATION**





ENGINEERING, DESIGN & TECHNOLOGY TECHNICIAN (Full Time)

Newcastle upon Tyne Royal Grammar School
Required from September 2023



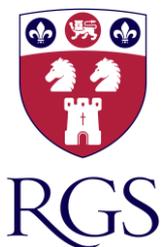
THE POSITION

We seek to appoint an Engineering, Design and Technology Technician to provide technical support to all users of the EDT Department in this busy and vibrant school. The EDT Department teaches all year groups in the Senior School and has excellent facilities. Activities include traditional woodworking and metalworking, mixed media product design, CAD/CAM, electro-mechanical and pneumatic systems, electronics and programmable digital technologies

The position would suit a person with experience in a design and technology or engineering related environment; experience of working in a school is not essential, but candidates must display a clear commitment to working with young people in an educational environment and have a willingness to learn



Job description: EDT Technician
Closing Date: 9.00am Monday 26th June 2023
Contact: Pete Warne (Head of Engineering, Design & Technology)
p.warne@rgs.newcastle.sch.uk



THE SCHOOL

Thomas Horsley, the original settlor of the Royal Grammar School Newcastle (RGS) pledged his legacy to the School in 1525. Almost 500 years later, RGS continues to flourish as the premier independent school in the North East of England and as one of the country's leading schools, and the Sunday Times' North East Independent School of the Decade 2020. Most recently, RGS was awarded the Sunday Times' 2023 North East's Top Independent Secondary School for Academic Performance. We regularly lead all northern schools in national league tables and pride ourselves on academic excellence, a high level of pastoral support, involvement in a wide range of sports and other co-curricular activities, and our commitment to bursaries and partnerships.

RGS has grown substantially in recent years. There are now some 1,340 students, over 260 of whom are in the Junior School. The Sixth Form of 350 students is one of the largest in the independent sector. We became coeducational 20 years ago and girls now comprise 43% of the school.

The school is based in the heart of the city, 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 new 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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THE ENGINEERING, DESIGN AND TECHNOLOGY DEPARTMENT

The EDT (Engineering, Design and Technology) department has an ethos of real engineering and design (melding design, engineering, physics, maths and programmable electronics) where we encourage our students to push boundaries and develop high level design skills that will allow them to create innovative working outcomes, be that physical or a mix of physical and digital.

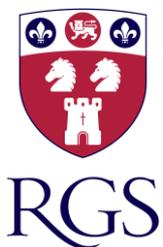


We enjoy a location that is close to art and design, computer science, maths and physics. The physical proximity of these subjects reflects our firm belief that all contribute to developing students' design and engineering skills.

Our technician needs to be sparky and enthusiastic, innovators themselves with real passion and with the desire to inspire children.

In the sixth form we offer students the [OCR Design and Technology: Design and Engineering](#) and Product Design [courses](#) which involve an element of co-teaching. At Key Stage 4, students are following either a Design Engineering or a Product Design pathway. We currently have three teaching sets in each of Year 10 and 11.

Year 7 and 8 students have one lesson of EDT per week and teaching groups comprise 16 or 17 students. Design Engineering and Product Design pathways are optional for Year 9, our GCSE foundation year, and we currently have five teaching groups with a total of 77 students. The Key Stage 3 program of study includes design engineering modules in electronics, programmable devices, and mechatronics, as well as a range of product design modules such as our Desk Tidy, Candleholder and Lighting projects. Stand-alone skills modules develop students free-hand sketching and 3D CAD skills in Years 7 and 9 respectively. We operate a three-way carousel in years 7 to 9.



The RGS is one of the leading schools nationally in terms of Arkwright Engineering Scholarship success: across the past five years there have been twenty one full scholars and one Arkwright Associate in the sixth form.

The department also plays a pivotal role for the school in the Nissan Engineering Scheme, Formula 1 in Schools, 4x4 in Schools, and Subsea UK competitions. We also compete in the Vex Robotics challenge.

The department aims to operate to BS4163:2014 health and safety standards which is under constant review. All members of the department have current Design and Technology Association (DATA) Health and Safety training certification.

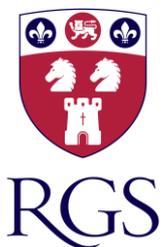
In addition, the department is working towards the 'DATA Mark' of excellence for Design and Technology teaching.

Getting out of the classroom to experience design and engineering in practice is vital to our curriculum. Visits to shops such as John Lewis and Ikea, and factories such as Nissan and SMD, feature in a normal school year.



Friendly and collaborative, the Department seeks to benefit from the enthusiasms and insights of each other whilst also resisting an over-prescriptive approach. We are committed to sharing good teaching practice. The successful candidate will have a love of the subject, will be able to bring his/ her creative initiatives and will want to function as a member of the Departmental team.

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ACCOMMODATION 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 ICT suite, and one design engineering studio equipped with a class set of CAD specification laptop computers. The workshops are very well-equipped and the department is able to undertake work in all structural materials such as timber, metal and plastics. There is a central resource area and a subject office located between the two workshops. The design engineering studio is where the majority of electronics, programming and mechatronics lessons take place.

The technician / instructor has their own base, which is located within the machine bay area.

The department enjoys superb display facilities in both the clean rooms and in the corridor area outside all four areas.

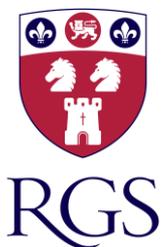
A healthy level of funding allows continued access to a range of good quality equipment to support practical work. The Engineering, Design and Technology department can field an impressive array of tools, apparatus, equipment and machinery. For example, we have a large CNC flat-bed router capable of 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 flexibly.

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. We share a dual extrusion 3D printer with the Art department.

The design engineering studio is equipped with over 100 Arduino programmable device teaching kits, and over 30 Genie PIC teaching kits. In addition, Meccano, Fischer Technik, Lego Technic/EV3 and Vex EXP systems are used for teaching.



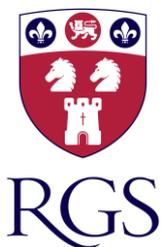
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KEY DUTIES AND RESPONSIBILITIES

EDT technicians work as a team to fulfill the following duties and responsibilities. A team member may not have all of the skills at the start of employment and the technical aptitude and willingness to learn is as important as having the specific technical knowledge at the time of application:

- Start of day opening and end of day closing of workshop resources
- Monitoring of workshops, plant, tools and equipment
- Lesson support and working with children
- 1:1 instruction to individual or groups of students
- Monitoring IT resources
- Maintaining resources and monitoring stock levels
- Metal working and machines maintenance
- Hot metal working and maintenance
- Wood working and machine maintenance
- PCB manufacture
- Organization and safe storage of materials and resources
- Monitoring stock levels, placing orders and receiving goods
- Assist with co-curricular activities such as VEX Robotics
- Lunchtime workshop support for students working independently
- Monitoring of Health and Safety
- Printing and photocopying
- Ad-hoc manufacture of specialist teaching aids and components



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

- The School has an open mind on the balance between experience and qualifications of candidates
- Courses of study relevant to the post

Experience

- This role may be suited to an applicant looking for their first post following a related area of study in college or higher education.
- This role may be suited to applicants that are looking to step-down from an established career in a related subject area.
- Previous experience working in a school or college is not essential, but an understanding of young people and a commitment to supporting their education is essential

Experience could include:

- Experience in a related area of study in higher education
- Experience working in an engineering, or design and technology environment in industry or education

Skills

Essential:

- Ability to think originally and creatively and show initiative
- High levels of IT competency
- Strong people management skills
- Able to handle (with appropriate risk assessment and with assistance as necessary) large and/or heavy pieces of equipment and materials
- Able to work to deadlines and prioritise work accordingly
- A good level of organisational and administrative skills

Desirable:

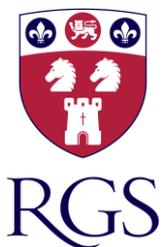
- Adept in the use of 2D and 3D CAD software
- Competent and experienced in the use of machine, power and hand tools

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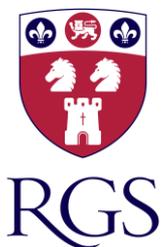
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- Ability to produce one-off metal, wood, plastic and rapid prototyped components for specific student projects at GCSE and A-level
- A good working knowledge of, and commitment to implementing good health and safety practice and procedures, ideally including preparation of risk assessments
- Ability to deliver 1:1 instruction to students on specialist machinery such as centre lathes, CNC routers, CAD software and 3D Printers
- Ability to deliver 1:1 instruction on hot metal working processes such as MIG welding, brazing, plasma arc cutting.

Personal Characteristics

- A personal interest in the subject area.
 - Eager and willing to learn new skills.
 - Eager and willing to help a dedicated team of teachers to inspire young minds.
 - Taking a pride in the quality of work, and instilling it in others
 - Self-motivated and able to work both with minimal supervision and as a member of a team.
 - A natural problem-solver who is motivated by implementing processes and solutions;
 - Show an understanding, or willingness to learn the issues associated with working among young people in a school.
 - 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
 - A willingness to contribute to the co-curricular aspects of the department and wider school
-



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 Sage, 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's 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.

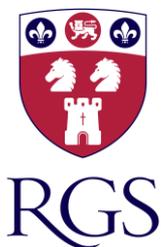
There are three local teaching hospitals, two universities in the city with another three close by. Some pioneering medical work goes on at the RVI, Great North Children's Hospital and the Freeman Hospital.

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

- The post will report to the Head Technician, who in turn reports to the Head of EDT.
- This role is term time only plus 6 additional days which are spread throughout the academic year to support the function of the department. Dates will be shared with the successful candidate and worked in agreement with the Head Technician/Head of EDT.
- The successful candidate will also be expected to work the annual safeguarding training day in September each year, which is compulsory for all staff (date varies each year).
- This is a permanent role with the school.
- The normal working hours for this role will be 8.30am until 5.00pm, 8 hours per day, Monday to Friday during term time (40 hours per week).
- We anticipate that the salary for this role will be c.24k gross per annum for an all-year round role (based on a 37.5 hour working week). As this is a term time only post, the actual salary will be pro rata'd to c.21K gross per annum (based on TTO working, 40 hours per week, plus 6 days and a day for safeguarding training). This is based on the support staff scale effective as of August 2023.
- Whilst this is a support and not a teaching role, we are open to a discussion regarding reasonable salary expectations and potential hours for the right candidate who can bring additional experience and skills to the role.
- RGS staff salaries are reviewed on 1st August each year.
- Given the requirements of the role, holiday during term time is not normally permitted. The successful candidate will be entitled to normal school holidays working around the additional 6 working days.
- The employee will be required to comply with a range of RGS policies, in particular, those regarding Data protection, use of ICT facilities, Child protection, Staff Behaviour and Health and safety, a copy of which will be made available.

WHAT WE OFFER

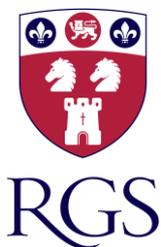
- During term-time, staff are provided with a free lunch, if on site.
- For non-teaching staff we offer a support staff pension scheme, The Aviva Pension Trust for Independent Schools (APTIS). On receipt of a 6% employee contribution the school makes an employer contribution of 10%. There is also the option of a 3% employee and 5% employer contribution, if preferred. This scheme is administered via Salary Exchange (also known as Salary Sacrifice) for those who are eligible. You can opt out of the Salary Exchange arrangement whilst remaining in the pension scheme. Further details of the scheme and salary exchange will be provided on appointment.

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- Membership to life assurance scheme through Aviva which pays out 5x annual salary in the event of death in service.
- The employee will become eligible for sick pay under the RGS Support Staff Sick Pay Scheme after a qualifying period. Details of the scheme will be provided on appointment.
- The school offers an optional healthcare plan for all staff which includes optical, dental and physio cover, access to telephone GP consultations and a host of other benefits (terms and conditions apply). Further information will be available to the employee once in post.
- As with all RGS employees, the employee will be encouraged to become involved in the wider life of the RGS community.
- It is the school's policy is to allow all eligible members of staff to educate their children at the school at concessionary rates, subject to their children meeting the academic entry requirements and subject to a place being available.
- 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.
- We offer an interest free travel loan for a corporate Metro travel pass after a qualifying period. Further information will be available upon starting in post.
- 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.
- 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.

Enquiries about this post should be made in the first instance to Pete Warne (Head of EDT) or Phil Heath (Head of Sciences and EDT). For an informal chat about the post, contact Pete Warne/Phil Heath on 0191 281 5711 or email p.warne@rgs.newcastle.sch.uk or p.heath@rgs.newcastle.sch.uk.

If, having looked through the website (www.rgs.newcastle.sch.uk) and read this job information pack and the Information for Applicants, you think this particular post would suit you, please say so (and why) in:

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

You must complete the application form, even if you want to also attach a CV. Please email all documents to jobs@rgs.newcastle.sch.uk by the closing date.

The closing date for this role is 9.00am Monday 26th June 2023

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.

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.

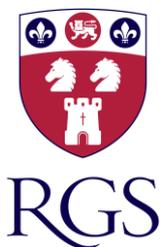
Safeguarding and Safer Recruitment

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 Safer Recruitment procedures to all candidates. More information regarding the checks can be found in the Information for Applicants and 'Keeping Children Safe in Education' (September 2022).

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

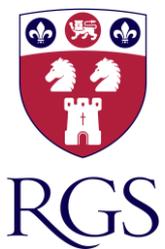
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experiences provide fresh perspectives, opportunities to challenge existing beliefs and provide opportunities to act as excellent role models for our diverse student body. We are committed to creating an inclusive and diverse school culture and our 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 age, disability, sex, gender reassignment, sexual orientation, pregnancy and maternity, race, religion or belief and marriage and civil partnerships. Whilst all applications are considered on merit, we would particularly welcome applications from black and minority ethnic candidates who are currently under-represented in our staff community.

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.

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CONTACT DETAILS

Royal Grammar School Eskdale Terrace Newcastle upon Tyne NE2 4DX

Tel: 0191 281 5711

General enquiries: communications@rgs.newcastle.sch.uk
Pete Warne, Head of Engineering, Design and Technology
p.warne@rgs.newcastle.sch.uk
www.rgs.newcastle.sch.uk

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