

**GRADUATE
ENGINEERING,
DESIGN &
TECHNOLOGY
TECHNICIAN**

**JOB
INFORMATION**



RGS



GRADUATE ENGINEERING, DESIGN AND TECHNOLOGY TECHNICIAN

Newcastle upon Tyne Royal Grammar School

To start as soon as possible

THE POSITION

We seek to appoint a Graduate 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 recent graduate and would allow candidates the opportunity to gain valuable experience in an education setting as part of their longer-term career plans. Similarly, the position may suit a person with experience in a design and technology or engineering environment and the school is open minded in respect of the balance of experience and qualifications offered by candidates; 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.

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. 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 extra-curricular activities, and our commitment to bursaries and partnerships.

RGS has grown substantially in recent years. There are now some 1,330 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.

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.

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Contact: Head of Engineering, Design and Technology, Mr Peter Warne
(p.warne@rgs.newcastle.sch.uk)



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 the (9-1) OCR single title GCSE in Design and Technology specification with flexibility across teaching sets for them to bias towards Design Engineering or Product Design. We currently have four teaching sets in both Year 10 and 11.

Year 7 and 8 students have one lesson of EDT per week and teaching groups comprise 16 or 17 students. EDT is 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 Engineering Education 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.

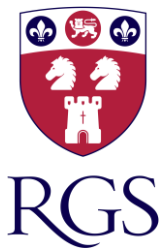
ACCOMMODATION AND RESOURCES

The EDT 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 his 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

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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 six 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 VR5 systems are used for teaching.

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 some really 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.

The RGS is on the edge of the city centre, a ten-minute walk from the main shopping areas. The leafy, affluent suburbs of Jesmond and Gosforth are close by with housing ranging from purpose-built flats in terraced streets and conversions of bigger houses to terraced houses, post-war semis and large, family-sized detached houses with big gardens. All of this is within walking distance of the school so no commute is needed. Properties are very affordable both within the city and the surrounding area. If you want to travel to work then you could wake

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up with a sea view, hop on the Metro and be at school just half an hour later. The region wins tourism and lifestyle awards for very good reasons!

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
- Degree or equivalent qualification in a relevant field

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, with strengths in the use of 2D and 3D CAD software
- 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:

- Competent and experienced in the use of machine, power and hand tools
- 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.

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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 workmanship, 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.
- An understanding of the wider issues of working with young people (safeguarding, etc.) is important.
- 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

MAIN TERMS AND CONDITIONS

- This role is term time only plus 7 staff days, which will include the compulsory safeguarding training at the start of each academic year.
- This is a permanent role.
- The post will report to the Head Technician, who in turn reports to the Head of EDT.
- We anticipate that the salary for this role will be in the region of £23k for an all-year round role. This will be pro rata to reflect the term time only status (TTO for 40 hours per week during term time, plus 7 days, will be in the region of £19k pa) based on the support staff scale effective as of August 2022.
- RGS staff salaries are reviewed on 1st August each year.
- 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.
- Working hours will be 40 hours per week, normally Monday to Friday 8.30am until 5.00pm during term time, with a 30-minute unpaid lunch break.
- Holidays – This role is term time only. The school offers a generous annual leave entitlement of 31 days plus Bank Holidays for all year-round support staff. These Holidays are pro rata'd to reflect the part time hours of working term time only. Holiday pay is incorporated into the annual salary and is split evenly over 12months. Given the nature of the role and the operational requirements of the school, requests for leave within term time will not be permitted.
- During term-time, staff are provided with a free lunch, if on site.
- For non-teaching staff we offer a support staff pension scheme with Aviva and 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.
- Membership to life assurance scheme through Aviva which pays out 5x annual salary in the event of death in service.
- The Graduate EDT Technician will become eligible for sick pay under the RGS Support Staff Sick Pay Scheme. Details of the scheme will be provided on appointment.
- 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 and Health and safety, a copy of which will be made available.

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- As with all RGS employees, the EDT Technician 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.
- There is a staff car park on site with limited spaces 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.
- 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.
- Free 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.

HOW TO APPLY

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 a covering letter of application. You must complete the application form, even if you want to also attach a CV. You are welcome to apply electronically, please email all documents to jobs@rgs.newcastle.sch.uk.

Please read the Information for Applicants with particular care before applying. And please note that the RGS is committed to the safeguarding of children and applies the Government's Safer Recruitment procedures, which will include:

- Checking that the submitted application form provides a continuous record of education and employment from age 16 (including education, employment and voluntary work) with reasons for leaving. Any gaps must be accounted for by the applicant.
- Provision of at least two satisfactory references, one of which must be from the applicant's current or most recent employer. In addition, the school will seek a reference from the relevant employer from the last time the applicant worked with children. Internal references will be sought where appropriate.
- Completion by the applicant of a confidential form of declaration of physical and mental health (after offer of appointment) and, if necessary, a satisfactory report following a medical examination.
- Evidence or other verification of the applicant's qualifications; For teachers, verification of any award of qualified teacher status (QTS) and the completion of teacher induction or probation. For support roles, evidence of qualifications relevant to the role or those listed on the application form must be provided.
- Obtaining a satisfactory Enhanced Disclosure Report from the DBS (via the applicant) including children's barred list information for those who will be engaging in regulated activity with children.
- Verification of an applicant's right to work in the UK.

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- Verification of the applicant's identity including a check of photographic ID, proof of address and a check of the applicant's birth certificate. The applicant must present official documentation to evidence any change of name or surname.
- For teaching roles or anyone involved in teaching, a check that the applicant is not subject to a prohibition order issued by the Secretary of State.
- For management roles (headteachers, senior leadership team (including non-teaching roles,) teaching positions with departmental headship, governors and trustees, proprietors) a check to ensure that the applicant is not subject to a section 128 direction made by the Secretary of State. This applies to any relevant internal applicants.
- If the individual has lived or worked outside of the UK for more than 3 months in the last 10 years, an overseas police check/s must be obtained (via the applicant) and any other checks deemed appropriate by the school, i.e., obtaining a letter (via the applicant) from the professional regulating authority in the country (or countries) in which the individual has worked.
- If the role, involves supervising children under the age of eight outside teaching hours or managing the supervision of children under the age of eight outside of teaching hours, applicants must complete a self-declaration to confirm that they are not disqualified from providing childcare under the Childcare (Disqualification) Act 2006 and Regulations 2018.

If you have any queries or would like to arrange a visit to the school, please do not hesitate to email or to call the school on 0191 281 5711 or the Head of Engineering, Design and Technology, Pete Warne (same number, email address below).

Interviews will be held shortly after the closing date. We will hope to make the appointment on the day, offering the post and gaining acceptance.

Self-Declaration of Criminal Record

Applicants who are invited for interview will be asked to complete a self-declaration of their criminal record or, of information that would make them unsuitable to work with children. Further information about self-declaration can be found on GOV.UK. Please note that if applicants electronically sign this declaration, they will be asked to physically sign a hard copy of the declaration at interview.

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. 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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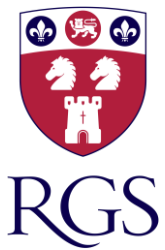
Safer Recruitment

RGS Newcastle is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment. In accordance with our Child Protection Policy, we are unable to process applications without a fully completed application form. The post is exempt from the Rehabilitation of Offenders Act 1974. Shortlisted candidates must declare any convictions, cautions, reprimands or final warnings that are not 'protected' as defined by the Rehabilitation of Offenders Act 1974 (Exceptions) Order 1975 (as amended in 2013 and 2020) via the self-declaration form. The successful applicant must obtain Children's Barred List clearance and DBS (Disclosure and Barring Service) clearance at enhanced level.

References

In keeping with the current Keeping Children Safe in Education regulations, references will be sought to support any appointment decisions that the school may make. Further information for applicants:

- the school will seek references for all teaching vacancies ahead of interview, one of which must be the individual's current or most recent employer.
- For support roles, it is a requirement for the school to request a reference from your current employer. It is our preference that we request references including one from your current employer before interview. Should you prefer for the school **not** to contact your current employer before an interview, you must supply details of an additional referee who is able to comment on your suitability for the role applied for. We will then contact your current employer at the point of making an offer of employment.
- In addition, the school will seek a reference from the relevant employer from the last time you worked with children, if you are not currently working with children in regulated activity.
- Internal references will be sought where appropriate.
- References must be completed by a senior person with appropriate authority. For teaching roles, this must be the head of a school. For support roles, this should be the employer, HR or senior level manager.
- Open references will not be accepted.



CONTACT DETAILS

Royal Grammar School Eskdale Terrace Newcastle upon Tyne NE2 4DX

Tel: 0191 281 5711

General enquiries: hm@rgs.newcastle.sch.uk

or communications@rgs.newcastle.sch.uk

Pete Warne, Head of Engineering, Design and Technology p.warne@rgs.newcastle.sch.uk

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