

# **Role Specification**

**Post:** Teacher of Design and Technology (full-time, permanent)

**Line Manager:** Head of Design and Technology

**Anticipated start date:** 01 September 2025

## **Outline of Department**

Design and Technology is a well-established and popular element of the curriculum at Bristol Grammar School. Superb facilities are available for this subject in the purpose-built technology centre.

We are looking to appoint a first-class enthusiast and communicator to join a team of teachers who are responsible for delivering a course covering key skills and techniques to all pupils in Years 7 – 8 and a growing cohort beyond. This course has been developed to provide a broad and balanced experience, including the use of CAD (using Solidworks and TechSoft) and CNC machine tools. To provide a natural progression from this course, we offer candidates the opportunity to study GCSEs in Product Design. Further progression can be made through GCE Design and Technology in Product Design which is an increasingly popular choice with many students continuing to study related subjects at university.

The successful candidate will be well qualified and innovative in approach. They will have experience in all aspects of core subject knowledge in resistant materials, graphics, electronics, CAD and CAM techniques. The ability to deliver Product Design up to GCE level would be highly desirable. A positive contribution to the implementation of the department's CAD/CAM initiative will also be required. Successful experience in industry prior to training as a teacher would also be desirable but is not an essential attribute.

#### **RESOURCES**

The technology centre has a shared suite of PC's in our dedicated CAD studio and new laptops for use by pupils. Students have access to the department 3D printers with 7 currently at their disposal. Examples of D&T software currently available for pupils include SolidWorks, Keyshot, TechSoft Design V3 and various options for slicer software.

The department has two full time technician staff to support the team in creation of resources and demonstration and close supervision of machining.

### **DESIGN STUDIOS AND WORKSHOPS**

The four design studios are key spaces within the centre. The department prides itself on its workshop facilities. Each one, integrated with its design studio, allows pupils and staff to move easily and monitor activities taking place within the combined working area. The size of each design studio was calculated for class sizes not exceeding 16.

All workshops are designed to allow pupils to work with a variety of materials, including wood, metal and plastics. A range of bench mounted and freestanding machines are strategically positioned. Each workshop includes: one drilling machine, two fretsaws, a strip heater, three PCB drill motors, an abrasive disc and/or belt linisher, and a band saw only for use by staff. All large-scale cutting and sanding machines are fitted with a local exhaust ventilation unit.

A wide range of hand tools are available for marking out, cutting, shaping and finishing materials. There are specialist storage units for these and ample space for the secure storage of pupils' work. Pupils are encouraged to take pride in the careful maintenance of all equipment and tools.

#### MACHINE TOOLS AND HOT METALS ROOM.

More advanced processes are undertaken in the machine tools and hot metals room. Although pupils predominantly use these areas in Year 9 and above, it is commo1n to find pupils in lower years using laser-cutting technology. The following facilities are available:

Machining Facilities include Bridgeport Series 1 Vertical Milling machine, complete with digital readout, Harrison M250 Lathes, Horizontal Belt Linisher, EFM DS 300 Brazing Hearths, TopMig 195 MIG welder, Crucible Furnace, PCB Laboratory Tank.

#### ATTAINMENT.

The core course, provided for all pupils in Years 7 and 8, delivers a broad, balanced and relevant experience, which includes the use of CAD and CAM. This enables a natural progression to GCSE and A-levels in Product Design.

Consistently strong coursework and examination performances by candidates over the last ten years have resulted in excellent grade averages. Last year pupil attainment at GCSE saw 85% of candidates attaining Levels 9-7 and the department attaining +0.6 VA at both GCSE and GCE.

The department is a founding member of the Arkwright Scholarship Trust, with over 25 years' experience of preparing candidates for scholarship applications and the selection process. With over thirty-five successful scholars going on to graduate with engineering degrees from top UK universities, one of our alumni is now professor of engineering education at a leading university in the USA.

The department makes a distinct and substantial contribution to the co-curriculum, with keen participation in Greenpower national and international events, 3D printing club, and is looking to enter more competitions with Flying Start embedded in the offerings and, new for 25-26, Scalextric in Schools.

### **Duties and Responsibilities**

### Particular duties of all teachers at BGS include:

- Keeping up-to-date with developments of their subject particularly having regard to matters relevant to the secondary school curriculum
- Planning lessons carefully and ensuring that appropriate resources are available
- Maintaining good classroom behaviour having regard to the behaviour policy of the School
- Regularly marking and assessing work in accordance with the department Feedback policy.
- Providing assessment information, report grades and feedback for learning as required by the assessment and reporting schedule
- Observing School policy on health and safety requirements and being aware of any subject specific health and safety requirement and risk assessments and ensuring that they are implemented appropriately at all times
- In the first year at BGS, attending the induction programme meetings
- Taking part in the appraisal procedures
- Acting as a Form Tutor unless other duties preclude this
- Acting as a House Tutor and supporting the Head of House in as wide a variety of House activities as possible
- Taking note of the special educational and health needs of individual students, following advice from the Head of Learning Support, Head of House, School Nurse and anyone with academic oversight for a Year group
- Referring concerns about the learning of any student(s) to the Head of Department
- Contributing to discussions of individual students or giving written advice on request from Form Tutors,
  Heads of Department, Heads of House, Head of Learning Support and anyone with academic oversight for a
  Year group
- Attending Charter Day, Open Day, Entrance Exams, Prize Giving and other major School events
- Developing and maintaining good relationships with parents and the local community
- Contributing fully to the life and the co-curricular programme of the School
- Conforming to the School's Staff Code of Conduct
- Adhering to the School's safeguarding procedures

All teachers at BGS commit themselves to contribute fully to the life of the School in and outside the classroom. In addition to being an energetic and enthusiastic teacher, the person appointed will also be expected to make a contribution to school games and/or activities which can include almost anything of interest to both staff and students. Applicants should indicate their areas of interest and expertise.

This job description is not necessarily a comprehensive definition of the post. It may be subject to modification or amendment at any time after consultation with the holder of the post.

# **Candidate Specification**

There are certain **essential criteria** that we would expect a candidate to possess.

A highly skilled and competent teacher who is energetic and totally committed to the ethos of the School and department

Be a graduate in Design and Technology or a closely related discipline

Have experience of teaching at KS3, KS4 and KS5

Be able to create a challenging and effective learning environment for all pupils

Plan engaging lessons that build on previous learning within the defined SOW, with clear objectives and that encourages student progress and a sense of adventure

Commitment to the ethos and holistic education provided by BGS and to the maintenance of BGS as a leading independent school

The following list outlines the further qualities, skills and experiences that the selection panel will be keen to explore with candidates. It is understood by the panel and – we hope – by prospective candidates, that no single person will fulfil every criterion. We encourage candidates who do not "tick every box", therefore, to apply nonetheless and to be open during the selection process about those areas in which they would wish to develop their skills and experience further.

Have ability and willingness to run the GreenPower club

Have experience of preparing students for entrance to Russell Group Universities

An enthusiastic and approachable nature

A sense of humour and an optimistic, resilient style when faced with pressure

The ability to develop good working relationships with all members of the School community

A well organised and resourceful approach to their work and have the ability to meet deadlines

Ensure that a range of teaching strategies are used that enables all learners to be highly motivated, enthusiastic and respond positively to challenge and high expectations

Use assessment data to challenge and motivate students of all abilities and inform future planning and targets

An up-to-date knowledge of teaching and training initiatives that can be used to enhance learning. (ICT literacy: iPads, software for recording and analysing students' performance)

Willingness to make a positive contribution to the co-curricular experience of pupils including trips

Be able to communicate well with children and young people and in particular be prepared to demonstrate:

- Motivation to work with children and young people
- Ability to form and maintain appropriate relationships and personal boundaries with children and young people
- Emotional resilience in working with any challenging behaviour
- Professional attitudes to use of authority and maintaining discipline
- Understanding of safeguarding and promoting the welfare of young people

## **Hours and Benefits**

Working Hours Normal working hours will be those necessary to carry out the duties of the post as Teacher

of Design and Technology.

**Salary** Competitive salary offered, dependent on experience, based on our Teachers' Salary Scale.

**Pension** The School is part of the Teachers' Pension Scheme and all teachers are automatically

included in the Scheme. The School also offers an alternative defined contribution pension

scheme (APTIS).

**Lunch** School lunch is provided during term time.

**Education** At present 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 a place being available.

**Car Parking** No car parking is provided during term time.

# **Equal Opportunities**

The School is an equal opportunities employer and is committed to equality of opportunity for all staff. Applications from individuals are encouraged regardless of age, disability, sex, gender reassignment, sexual orientation, pregnancy and maternity, race, religion or belief and marriage / civil partnerships. We are committed to increasing the diversity of our staff body and particularly welcome applicants from minority groups, especially black or Asian teachers who are currently under-represented in our community of teaching staff.

# **Application details**

To apply please visit our website, <u>employment opportunities section</u>. On the role specific page there is an 'Apply now' button which will take you into the online application process

The closing date for applications is 22 April 2025.

Interviews are currently will be held on 28 April 2025.

Bristol Grammar School 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. All convictions, cautions and bind-overs, including those regarded as 'spent' must be declared when applying. The applicant may post such a declaration in an envelope marked 'Private & confidential for the Headmaster' which will only be opened should the candidate be shortlisted. The successful applicant must obtain List 99 clearance and DBS (Disclosure and Barring Service) clearance at enhanced level.