



Teacher of Design Technology

The school

Queen Elizabeth's Grammar School was founded in 1509. A former Direct Grant Grammar School, it now caters for 1030 students and has plans to expand to 1300 students. The QEGS family currently consists of the Infant School (ages 4-7), the Junior School (7-11), Main School, (11-16) and Sixth Form (16-18). From September 2017 the Infant School and the Junior School will join to become one primary school. The school embarked on full co-education in September 2001 and 40% of our pupils are girls.

Since the demise of the Assisted Places Scheme we gradually became a smaller school and although what we do is good (see last inspection report from ISI) we decided that an alternative model would be better for securing our future and enabling us to remain true to our roots as a school for pupils of diverse backgrounds without charging fees. Thus we became a Free School in September 2014. This means the school will expand to its former size of 1300 over the next three years, creating many opportunities for increasing the breadth of our curriculum and extra-curricular activities. Our ethos will remain the same: a commitment to high aspirations for all and educating pupils so they become well-rounded, confident individuals who will go on to make a positive contribution to society.

The school enjoys a reputation for academic excellence. It continues to draw pupils from a wide area of north and east Lancashire. A number of students proceed to the universities of Oxford and Cambridge, and almost all the Year 13 students go on to university.

Equally, the school remains committed to a wide range of extra-curricular activities. Facilities are excellent, including a large sports hall, swimming pool and Sixth Form Centre. Investment in whole school ICT has been particularly generous in recent years, including the replacement of all classroom PCs, upgrading of the wired network and servers, installation of a wireless network and the introduction of wireless devices in the Infant and Junior Schools. In 2008 the Holden Science laboratories were completely refurbished and all three sciences were brought under one roof. At the same time the Maths Department moved into its own dedicated and upgraded area, with its own ICT laboratory. In the Junior School, a new science laboratory was opened in 2005 whilst an ICT suite, shared with the Infant School, opened in 2006. In 2011 we completed, in partnership with the Football Foundation, a major extension to our Sports Hall at the Harrison Playing Fields. A new nursery, not part of the Free School, was opened in September 2012 and extended in 2013 to take babies from 3 months old. Innovative and up-to-date in our approach, we nonetheless remain conscious of our long and fine tradition.

The successful candidate will be in sympathy with the aims and ethos of independent education (without fees) and will wish to participate in the extra-curricular life of the school.

Academic results have been good and are getting better. Typically, a third of A levels are graded A*/A and the pass rate is close to or at one hundred percent. At GCSE, Progress 8 is above 0 and both Attainment 8 and the percentage gaining English and Maths are very strong. At Key Stage 1 and 2 we consistently achieve well, particularly in the externally examined aspects. The most recent examination results are available through our website. The school is hugely oversubscribed (over 700 applicants for 85 places in year 7 this year).

At Queen Elizabeth's we are committed to the safeguarding of children, as the successful applicant will be. Our safeguarding policy, which is regularly reviewed, is on our website. All offers of employment are conditional upon appropriate checks, including an enhanced DBS (formerly CRB) and Prohibition List check.

The post

The School seeks to appoint a full-time Teacher of Design Technology from 1st September 2017.

QEGS has a pay scale marginally above CPS and remuneration will be set according to qualifications and experience. All teachers are members of the Teachers' Pension Scheme.

Applicants must have a good, relevant degree and have a PGCE. Applications are accepted from NQTs.

The Department

All Design Technology teachers within the department aim to provide a friendly, safe and well equipped environment that gives all pupils the opportunity to independently create a range of solutions to a broad range of tasks or problems, whilst considering the impact on society and the environment.

- To provide pupils with opportunities and encouragement to use their intellectual and practical skills to solve problems initially by research and analysis, and then by having them go on to develop a range of viable solutions which they may manufacture. Various materials and technologies are employed to further these aims.
- To enable pupils to test the validity of their solution/s by providing them with the skills to make and evaluate a product.
- To establish an understanding of working materials and systems in a safe manner.
- To establish an understanding of basic technological concepts and their application.
- To develop the ability to communicate, verbally, visually, and by written means, all matters relating to the design/make process.
- To provide the opportunity for knowledge gained to be applied creatively.
- To stimulate and enlarge pupils' attributes of initiative, ingenuity, resourcefulness, self-involvement, co-operation, patience, sensitivity and commitment.
- To endow pupils with an appreciation of design and a discerning attitude towards manufactured artefacts and quality of work.

Key Stage 3

During the first 3 years, pupils undertake a range of practical projects. These involve materials such as acrylic, mild steel, MDF, HIPS and pewter. In the first term they complete a course on graphics to help with their ability to illustrate their thoughts and ideas. They will also be taught 2D and 3D Computer Aided Design skills culminating with the use of the 3D printer. The departments' laser cutter will also be used to further enhance the high quality outcome expected in the subject.

Key Stage 4

In Years 10-11, interest is further developed by increasing the depth of study and by broadening the tasks undertaken. From September 2017 pupils will follow the AQA Design and Technology syllabus for their GCSE studies. This is a new Specification and, amongst many topic areas, will test the students' abilities in understanding:

- Independent analysis and creative thinking,
- Knowledge of the properties of specific materials and working characteristics,
- Mechanical principles in existing products and systems
- Computer control and programming
- The place of product design in today's society

The course will have a mixture of formal theory lessons; practical exploration sessions, research and design time as well as independently lead practical project time in the workshop.

Assessment will take the form of one two hour written examination and one Non-Examined Assessment (NEA), a design and make project lasting 30-35 hours. Each of the two assessments is worth 50% of the full GCSE.

Key Stage 5 - Sixth Form

In the Years 12 & 13, students follow the A Level, AQA Design and Technology - Product Design. This new qualification places greater emphasis on understanding and applying iterative design processes. Students will use their creativity and imagination to design and make prototypes that solve real and relevant problems, considering their own and others' needs, wants and values. Students can learn about contemporary technologies, materials and processes, as well as established practices.

As with GCSE, teaching approaches vary depending on the topic. There will be a considerable amount of practical investigation, some guided by the teacher, others independently managed and analysed by the student.

Assessment will take place at the end of the second year of the course and will take the form of two x 2 hour examinations and one Non-Examined Assessment (NEA), a substantial design and make task lasting 45 hours. The examinations combined are worth 50% of the A level with the NEA making up the remaining 50%.

FACILITIES AND RESOURCES

There are two workshops, comprehensively equipped with both hand and machine tools. We cater for a full range of resistant materials. (Benches are of the multi-media type, each having a least two vices and a set of woodworking tools). The machine room with two circular saws, a dimension saw, an under & over planing machine, a band saw and a morticer is used to prepare materials for pupil projects. There is also an IT room with 16 computers. In addition, there is an A3 scanner, graphics tablet, A3 printer and a 3D printer linked to the school network. The computers are used for 2D and 3D design work as well as for research tasks.

Next to the drawing office is a CAM laser cutting machine this is used to realise design ideas for certain products. It is an excellent resource and is extremely popular with pupils.

A Departmental Library is also available, with wide range of books to help pupils further their research.

TRIPS AND VISITS

The department has organised, successful trips & visits to Barcelona (with the Art Department), BAE Systems (Samesbury), Leyland Trucks, Jaguar Land Rover (with Business Studies), Paul Case Furniture and Graham & Brown.

EXTRA-CURRICULAR ACTIVITIES

The department enters teams into the annual 'Rotary Club Technology Tournament'. Are 6th Form team are currently the holders of the senior trophy and have been for a number of years. We have had successes with the junior and intermediate teams over the years too.

3D Printing Club takes place weekly during lunchtime. The 'Wearable Tech Club' takes place every cycle.

Workshops are made available, for either extended work or individual projects, at lunchtimes on request, but they are open Thursday lunchtime regardless. The workshops are also open on Wednesdays & Thursdays after school (3.50-5.15pm).

Job Description

All teachers are expected to:

1. Set high expectations which inspire, motivate and challenge pupils
 - Set appropriate goals, including via the Aspirational School Target Grades, to stretch and challenge all pupils
 - Maintain a safe working environment in the classroom at all times
 - Demonstrate consistently the positive attitudes, values and behaviour expected of pupils at Queen Elizabeth's
2. Promote good progress and outcomes by pupils
 - Be accountable for the attainment, progress and outcomes of the pupils in their classes
 - Plan teaching to build upon pupils' capabilities and prior knowledge
 - Implement the school Marking Policy, including guiding pupils to reflect on their progress and their emerging needs
3. Demonstrate good subject and curriculum knowledge
 - Have a secure knowledge of their subject and curriculum area
 - Maintain an up-to-date understanding of teaching methodology
 - Contribute to the development of courses of study, teaching materials, etc.
 - Promote high standards of literacy and the correct use of written English, whatever the teacher's specialist subject
 - Promote high standards of numeracy in all pupils
4. Plan and teach well-structured lessons
 - Plan and prepare lessons and courses in order to impart knowledge and develop understanding effectively
 - Promote a love of learning and intellectual curiosity

- Set homework and other out-of-class activities according to the published schedule
 - Reflect on the effectiveness of lessons and approaches to teaching
 - Contribute to the design of an engaging curriculum within their subject area(s)
5. Adapt teaching to respond to the strengths and needs of all pupils
- Differentiate lessons appropriately according to the educational needs of all pupils in their classes, including SEND and G&T.
 - Have a secure understanding of how a range of factors can inhibit pupils' ability to learn, and how best to overcome them
 - Adapt their teaching to support pupils' education at different stages of their development
6. Make accurate and productive use of assessment
- Assess, record and report on the development, progress and attainment of the pupils in their classes
 - Make use of formative and summative assessment to secure pupils' progress
 - Use relevant data to monitor progress, set targets and plan subsequent lessons
 - Give pupils regular feedback, both orally and through accurate marking according to the school's policy and give pupils the opportunity to respond to that feedback.
 - Participate in the arrangements for preparing, presenting and assessing pupils with regard to public examinations
 - Play a full role in their department's planning and preparation for formal internal assessments
7. Manage behaviour effectively to ensure a safe learning environment
- Maintain a good working environment in the classroom and take responsibility for promoting good and courteous behaviour at all times, in line with the School Code
 - Administer sanctions where necessary in line with the school's Behaviour Management policy
 - Use praise, sanctions and rewards consistently and fairly
 - Maintain good order and discipline among pupils and safeguarding their health and safety at all times when they are the responsibility of the School, including out of school activities
 - Liaise with those responsible for pupils' pastoral welfare and where necessary with parents
8. Fulfil wider professional responsibilities
- Make a positive contribution to the wider life of the school through sport, music, drama or other extra-curricular activities
 - Participate in staff meetings, departmental meetings and in meetings between parents and staff
 - Attend so far as is reasonable Assemblies and other School functions
 - Perform such duties appertaining to School activities as shall reasonably be entrusted to him/her from time to time by the Head
 - Participate in the Professional Review and Development (Appraisal) scheme
 - Deploy support staff effectively, including Teaching Assistants
 - Participate in the INSET programme

Personal and Professional Conduct

All teachers are expected to demonstrate consistently high standards of personal and professional conduct. Teachers must have proper and professional regard for the ethos, policies and practices of Queen Elizabeth's, and maintain high standards in their own attendance and punctuality. All teachers must:

- * Familiarise themselves with the Child Safeguarding Policy and act accordingly
- * Familiarise themselves with and follow the Code of Professional Conduct
- * Not undermine fundamental British values, including democracy, the rule of law, individual liberty and mutual respect, and tolerance of those with different faiths and beliefs

Applications

Applications must be submitted to the Acting Head, Mrs CY Gammon via email to head@qegsblackburn.com or by post. **These should take the form of a letter of no more than 2 A4 sides in Arial point 11, accompanied by your *curriculum vitae* and a completed application form, available from our website, www.qegsblackburn.com. These should be received by no later than noon on Monday 19th June 2017.**

All applications will be acknowledged. Interviews will be held in the commencing fortnight and the appointment will be made as soon as possible thereafter. **Documentation to be brought to interview: passport, driving licence, A level, degree and PGCE certificates, two utility bills or statements and documentation confirming NI number.**