**THE PHYSICS DEPARTMENT**

**Teaching**

Physics is a popular subject at A-level, the fourth-largest in the school. We currently have almost 80 sixth form physics students, in seven classes. Students have nine 1-hour lessons per fortnight, five with one teacher and four with another. We follow the AQA A-level specification. We are lucky to work with many talented and motivated students: over 25% of the Physics cohort achieved A grades last summer. In the autumn, six of our year 13s secured an interview at Oxford or Cambridge for Physics or Engineering, and two have been offered places.

Pupils are taught Physics, Biology and Chemistry separately from year 7, by subject-specialist teachers. Small class sizes (no more than 26 students) allow more individualised learning to take place. Pupils have three 1-hour Physics lessons per fortnight in year 7, and two in years 8 and 9. While GCSE teaching will formally begin in year 10, the year 8 and 9 curriculums are designed to introduce a significant proportion of the subject content, while maintaining a strong emphasis on practical skills and pupil engagement and enjoyment. Towards the end of year 7, pupils tour our roof-top solar panels, electricity distribution room and boiler room, and then complete a five-week practical project to address a related scientific question of their choice, working towards CREST Bronze Awards.

As a recently-opened school, we currently have year 7, 8, and sixth form students. The school will reach capacity in 2019, when our current year 8 students enter year 11. At GCSE, students will opt to take separate Physics, Chemistry and Biology GCSEs, or GCSE Combined Science: Trilogy, all following AQA specifications. Students will have four 1-hour Physics lessons per fortnight in year 10 and 11. Teachers who join the school at this exciting, pioneering stage will have the opportunity to help design and shape the curriculum.

**Facilities and equipment**

We already teach in outstandingly designed and resourced laboratories, but the Physics department will soon benefit from a suite of three brand new laboratories. All will be larger than the spacious 90m2 laboratories we use currently, and teachers are closely involved in design decisions to ensure that they are the best possible for teaching and learning. Every laboratory has an interactive whiteboard with visualiser.

The department encourages the appropriate use of ICT throughout teaching and learning activities. The school has multiple class sets of ipads (with specialist Physics apps) and laptops, which we use in a high proportion of our lessons. These resources are booked online and delivered directly to laboratories.

We have an incredible array of top-quality, brand-new equipment, thanks to our generous budget of over £30,000 for Physics last year. Equipment suggestions are welcomed from teachers as we design a hands-on curriculum for all year groups. We have sufficient equipment for pupils to work individually when needed. We also have a range of up-to-date textbooks and online resources, and have chosen a wide variety of Physics-related books for the library.

**Teacher CPD, Support and Progression**

We have recently become a Partner School with the Stimulating Physics Network. Staff benefit from regular, personally-tailored training by top Physics teachers from other schools, and free places at Institute of Physics Summer Schools. In addition, there is a research-led CPD programme for all teaching staff, delivered with the support of the University’s educational experts, and a comprehensive programme to support newly-qualified colleagues.

A rapidly-growing institution like the University of Birmingham School offers regular opportunities for progression. In addition to the many opportunities to contribute to enrichment and lead projects within the department, there have been several internal appointments to roles with a variety of additional responsibilities.

**Enrichment**

Pupils and students enthusiastically engage with our enrichment programme, which has so far included:

* **For the sixth form**, the Engineering Education Scheme, Astronomy club (who also attend the University’s Astronomy in the City events), lectures from University academics, Physics Olympiad preparation, and Oxbridge preparation. We also offer weekly drop-in sessions to support students with homework and revision.
* **For the lower school**, Young Engineers, a Rollercoaster Design club, and British Science Association CREST Awards.

These activities are timetabled into the school day and rotate through the year to provide interest for students and staff alike. Many teachers choose to lead enrichment activities in range of sports, creative pursuits and other hobbies.

**The Team**

The Physics department is an enthusiastic and committed team of three full-time, talented and well-qualified teachers. We work extremely well together, and enjoy passing on our passion for the subject to the students we teach. Five full-time technicians support the whole school; typically one technician is dedicated to Physics each term. A professional services team supports the departments by providing reprographics services, photocopying and laminating teaching resources as needed. We work closely with colleagues across other subjects, particularly the other Sciences and Mathematics.

The staff body has a strong social element, with Tuesday tea and cakes, Friday breakfast fry-up, and regular social sports in school. All are popular and well-attended.

The Senior Leadership Team are pro-active in consulting staff on all aspects of school development, and support our half-termly Teacher Voice meetings.

You are welcome to contact Diana Cross d.cross@uobschool.org.uk with any queries regarding the department.