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| **A Level Physics** | |
| **Exam Board: AQA** | **Qualification Code: 7408** |
| **Subject overview:** | |
| **Combines well with:** Mathematics, Further Mathematics, Chemistry, Computer Science | |
| Modern physicists have been responsible for some of the greatest achievements of our era. Just think – without our understanding of atomic theory there would be no computers, no internet, no smartphones. The digital age as we know it would not exist. Without quantum mechanics there would be no lasers or satellite navigation. Who knows where future scientific discoveries and inventions will take us? An A Level in Physics could take you to the frontline of the latest emerging technology. Whether you are working in a field directly related to physics like nuclear physics or astronomy, or one that simply uses the skills you’ve gained, your Physics A Level can really help you to make a difference.    The aim of the course is to provide a stepping stone from GCSE to Advanced Physics including Quantum Physics, Medical Physics, Nuclear Physics, Mechanics and Magnetism. It prepares students not only for studying Physics further but any course and career which requires  logical  thinking and a  structured approach to problem solving. | |
| **Course outline including assessment method:** | |
| These qualifications are linear. Students will sit all the A-level examinations at the end of their A-level course.  Students will sit 3 x 2-hour examinations at the end of the two years course.  There is no coursework for A-level Physics which is 100% examinations.  Knowledge and understanding of practical work will be assessed in written examinations, about 15% of total marks in our A-level examinations will be based on practical questions. | |
| **Year 1 Contents:** | **Year 2 Contents:** |
| 1. Measurements & their errors 2. Particles & Radiation 3. Waves 4. Mechanics & Materials 5. Electricity | 1. Further Mechanics & Thermal Physics 2. Fields & their consequences 3. Nuclear Physics 4. Option – Turning Points |
| **Resources and Facilities at TKAW:** | **Careers and Progression:** |
| The Science Department at The Khalsa Academy Wolverhampton is well resourced with textbooks, specialist science equipment and state of the art laboratories. Students will benefit from using apparatus appropriate to     higher level qualifications and will practise the skills required by employers within and beyond the field of Science. | Students studying Physics can study the Physical Sciences, Physics, Engineering, Mathematics. The career options for physicists are too extensive to list, but here are a few: Defence, Astronomy, Education, Meteorology, Energy, Research, Telecommunications, Finance, Computing, Law. Highly paid careers are available for students with Physics degrees. |
| **Entry Requirements:** | |
| All students must have at least a grade 7-7 in GCSE Combined Science or, a minimum of grades 7/6/6 in the Separate GCSE Sciences with at least a grade 7 in the Physics component of these GCSE Sciences.  Due to the high level of mathematical requirements of this course, all students must have at least a grade 6 in GCSE Mathematics. Due to the high level of written communication for this qualification, all students must have at least a grade 6 in GCSE English Language. | |
| Who to contact: | |
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