PAGET HIGH SCHOOL
Aspire to be more...

Science: KS5 BTEC Level 3 Applied Science - Extended Certificate (x1 A Level Equivalent)

Subject:

The course is designed to equip pupils with the skills required for a variety of job roles linked to Science. In addition we offer specialist modules that lead to a choice of qualification, depending upon the on student's interests. A BTEC in Applied Science is an extremely marketable qualification for pupils who wish to continue onto higher education or to go straight into employment.

Students have to be aware that this is not an A Level, it is an equivalent qualification. However, it does not provide the same UCAS points as a standard A Level. Students should when looking at this type of course consider the entry requirements of any prospective University. At Paget we have had great success with many of our students using their BTEC qualifications to go into further study.

This course consists of three mandatory units and one optional unit, adding up to 360 guided learning hours. Students **must complete both years** in order to gain a qualification which is graded Distinction * - Pass.

Students must **pass** in all units in order to progress, but the examinations can be re-sat during the life of the course if failed first time around. A BTEC in Applied Science could lead to pupils becoming: Drug Researchers, Scene of Crime Officers, Technicians, Analysts, Police Officers, Nurses or Clinical Scientists.

The aims of the specification are to develop skills as well as scientific understanding by:

- cognitive and problem-solving skills: use critical thinking, approach non-routine problems applying expert and creative solutions, use systems and technology,
- intrapersonal skills: communicating, working collaboratively, negotiating and influencing, self-presentation,
- interpersonal skills: self-management, adaptability and resilience, self-monitoring and development,.
- the ability to learn independently,
- the ability to research actively and methodically,
- to be able to give presentations and be active group members.

Team members:

Teaching Team:
Mr C Williams (Head of Science) - Biology and vocational specialist.
Miss A Davies - Biology and Chemistry specialist.

Coursework Verification Team:
Mrs K Tatham (Second in Science) - Chemistry specialist.
Mrs H Kaushal (Lead Teacher) - Biology Specialist and BTEC Lead Verifier.
Mr P Ellison - Physics specialist and DofE Co-ordinator.
Mr A Riaz - Chemistry and Physics specialist.
Miss N Sohail - Chemistry and Biology specialist.

Support Team:
Mrs M Bibi - Curriculum Area Teaching Assistant.
Mrs J Redfern - Biology specialist technician.
Mrs V Nolan - Chemistry specialist technician.
Mr J Yates - Physics specialist technician.

Facilities:

We have seven laboratories spread across the two buildings that form the Main Block and Trent Building. These are serviced by three specialist technicians who also support extra curricula activities.

PAGET HIGH SCHOOL
Aspire to be more...

Curriculum Summary: (*KS5)*

Assessment:
Assignments for some units are set and marked by the centre; students will complete a series of tasks set in a work-related scenario which is tailored to the needs of the school.

Some units have tasks set by Pearsons (the exam board), these are completed under controlled conditions, including a practical task that will tackle and everyday challenge and draw on pre-released information and taught content.

Finally students will be set an examination which is 1hr and 30 minutes long under high control examination conditions.

Assessment of this course focuses on application of skills in a work environment, and is therefore entirely coursework based with no examined elements. Not only does this prepare candidates well for the world of work but universities are also increasingly praising the additional skills it equips students with. Assessments are performed under controlled conditions and require students to apply their learning to unfamiliar scenarios allowing them to provide evidence to demonstrate their understanding.

Units covered over the two years

Compulsory Units	Optional Units - 1 chosen from
Unit 1: Principles and Applications of Science 1 (90 GLH) – 1 hour 30 minutes External written examination	There are 9 units to choose from. For example:- • Physiology of Human Body Systems. • Human Regulation and Reproduction. • Biological Molecules and Biological Pathways. • Genetics and Genetic Engineering. • Diseases and Infection. • Applications of Inorganic Chemistry. • Applications of Organic Chemistry. • Electrical Circuits and their Applications. These units are all internally assessed in the form of coursework assignments.
Unit 2: Practical Scientific Procedures and Techniques (90 GLH) – Internally assessed coursework assignments	
Unit 3: Scientific Investigation Skills (120 GLH) – Task set by exam board to complete in lessons and externally marked	

Links to useful sites:

www.nuffieldfoundation.org/practical-chemistry/determination-relative-atomic-mass.
www.nuffieldfoundation.org/practical-chemistry/finding-formula-hydrated-copperii-sulfate.
www.creative-chemistry.org.uk/alevel/module1/documents/N-ch1-35.pdf.
www.creative-chemistry.org.uk/alevel/module1/documents/N-ch1-35.pdf.
www.docbrown.info/page07/equilibria8f.htm
www.nationalstemcentre.org.uk/elibrary/resource/7614/unit-s4-bonding-and-structure
www.nuffieldfoundation.org/practical-chemistry/which-substances-conduct-electricity
www.nationalstemcentre.org.uk/dl/82a08ab5921c8803e6059bb1ee84fb86c63a0e71/28815-CCE-31-CompetitionForOxygen.pdf
www.nationalstemcentre.org.uk/dl/75395078bb96e5bc05ee23f81e9ee144f55c6261/28728-Microscale4.pdf
http://ed.ted.com/lessons/the-wacky-history-of-cell-theory#watch

Extra-curricular activities available in the CA:

Staff provide lunch time and after school support sessions, which students are encouraged to attend. This is when students can go through errors in homework, misconceptions or just general support. Students at Key Stage 5 are also invited to Saturday school between 10am and 12pm for additional support in Core subject.