



LANGLEY PARK SCHOOL FOR GIRLS CO-ED SIXTH FORM

A student guide booklet to:

OCR Level 3 AAQ in Applied Science



LPGS Science Department

Class of 2026-2028

**A Student Guide Booklet to the
OCR Level 3 Cambridge Advance National
Extended Certificate in Applied Science**

**"THE IMPORTANT
THING IS TO
NEVER STOP
QUESTIONING OR
LEARNING"**

- Albert Einstein



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Introduction

Welcome to the Sixth Form at Langley Park School for Girls.

Congratulations on making the choice to study Level 3 Applied Science. This handbook contains lots of information about the courses we run here at LPGS. Please take the time to read through it carefully to ensure you are aware of our expectations, course requirements, methods of assessment and staff contacts. This document may be updated throughout the year with the most recent version available at the link below:

<https://www.lpgs.bromley.sch.uk/sixth-form/our-courses/course-information/>

Alongside A levels, Level 3 vocational qualifications are the most widely-recognised qualification for admission to higher education. These are career-based qualifications designed to give students the skills they need to move on to higher education or go straight into employment and offer a more practical way of learning.

At LPGS we offer an Extended Certificate which is equivalent in size to completing one A Level subject and consists of 5 units. The Extended Certificate is designed for learners who are interested in learning about the Science sector alongside other fields of study, with a view to progressing to a wide range of higher education courses, although not necessarily in Applied Science. Learners completing the Extended Certificate will do so as part of a programme of study at LPGS that includes other appropriate vocational qualifications or A Levels.

The course will enable learners to acquire substantial cross-sector scientific knowledge and practical skills including carrying out practical laboratory tasks, planning investigations, collecting and analysing data and presenting your findings. The courses cover a wide range of topics across Biology, Chemistry and Physics.

What makes the Applied Science qualification different to Science A-Levels?

- Students develop skills, knowledge and understanding in the vocational area they are studying
- Each vocational course is made up of a number of units, allowing students to build up their qualification in stages
- Students are assessed through coursework, exams and a controlled practical with an exam
- Students take responsibility for their own learning by planning their work, doing research and regularly reviewing progress
- They effectively prepare students for the world of work as employers' value the qualities that vocational students bring to the workplace, e.g. organisation, time management, communication and research skills
- Universities and other Higher Education institutions value the independent study skills that vocational students bring to their courses
- The courses meet the needs of a wide range of students, as they are flexible and can be assessed in a variety of ways. They can also be studied alongside other qualifications, such as A Levels.



- They give students the opportunity to try a range of activities, such as work experience placements, designing products, organising events, investigating professionals and businesses and working in teams.

Expectations of Students Studying Vocational Qualifications

- **Attendance is vital.** The course builds on knowledge over time so you need to be in all lessons so as not to miss critical information that could be the 1 mark difference between grades at the end of the course.
- **Punctuality is key.** Punctuality is an important quality and is highly desirable by potential employers we want to include this information when we come to writing your references. Lessons are designed around you all being ready to work for the full lesson and your lateness may impact the learning of fellow students. Students who arrive late to lessons will receive afterschool detentions in line with the whole school behaviour policies.
- **Be prepared.** Every lesson you should arrive to your class with a pen, a pencil, a ruler, a scientific calculator, a protractor and your notebook.
- You are expected to do about **4 hours of independent study** per subject per week.

Type of learning in the classroom

During your studies you will be taught in a number of ways depending on the unit being delivered, the stage of delivery and the type of assessment.

Teacher-Led

During each unit there will be a degree of teacher input which might involve PowerPoint presentations, question and answer sessions, discussions and note taking. It is important to record any information you are taught in your notebook. You must take responsibility to ensure that your notes are up-to-date, organised and that you catch up on any work missed.

Student Investigation

Part of your studies will require you to work on your own to find out the required information for your assessments. You may need to research different scientific topics. This may be carried out by using the internet or talking to experienced professionals in relevant sectors. You are expected to manage your time effectively and any work that you produce for your assessments must be your own work

Group Work

For certain tasks and assessments, you may be required to work in a group with your fellow-students. Although you are working in a group you will be assessed on your individual contribution so you need to be able to work well with different people and take an equal share of the workload.

Practical Work

During lessons or assessments, you will be required to undertake practical activities. This might involve doing a presentation or carrying out a practical investigation. Again, you will be assessed on your individual contribution so must ensure you share the workload.

To achieve your full potential in this qualification it is important that you keep organised, reflective and flexible. In summary, you will need to make sure that you:



- Stay up-to-date with classwork and homework
- Undertake wider reading and research to help inform your assessments (see the further reading section at the end of this booklet)
- Keep a record of the information you find and the sources used, including referencing them in your work where relevant
- Plan and present your work in a logical and appropriate format
- Meet deadlines and produce good work with high standards of grammar and spelling
- Keep a record of the work you have completed, including the grades and points you have been awarded
- Self-evaluate your work and make suggestions for improvement

Methods of Assessment

During your course, you will be assessed in a number of different ways depending on the unit. For each programme on offer at Langley Park School for Girls, you will complete:

- Internal assessment (coursework units), which are marked by your teachers and then moderated by the exam board (OCR).
- External assessments, two of which are formal exams and one of which is written task. These assessments are undertaken in controlled exam conditions and marked externally by OCR.

Which vocational science qualifications do we offer?

Cambridge Advanced Nationals in Applied Science and Human Biology (both are Extended Certificate, equivalent to one A level).

Course units:

This qualification enables learners to acquire substantial cross-sector scientific knowledge and practical scientific skills, including carrying out practical laboratory tasks, planning investigations, collecting, analysing and presenting data, and reviewing and refining the methodology of practical and laboratory-based work.



External Assessments: examined units

During your two year course, you will complete the following external examinations, one in each year.

Fundamentals of Science, covering biology, chemistry and physics. Exam in May 2027.

This course takes 90 GLH (Guided Learning Hours). This is the time that you are taught content by your teacher. Your independent study on homework tasks is additional to this. There will be two resit opportunities for this exam: one in January 2028 and another the following May.

Science in Society, covering working scientifically, handling data, scientific developments and communication. Exam in May 2028. 90 GLH.

There are no resit opportunities for this exam.

The number of guided learning hours indicates the weighting of the unit when calculating the student's final grade.

Internal Assessments: coursework units

One mandatory unit:

Investigating Science, doing your own science project.

Two option units from:

Forensic Biology, Medical Physics, Environmental Studies, Analytical Techniques in Chemistry.

Each of these is 60 GLH. You will be expected to carry out your research in addition to this time.

Assignment Briefs

For internally-assessed units, the format of assessment is an assignment taken after the content of the unit has been delivered. An assignment may take a variety of forms, including practical and written types. An assignment is a distinct activity completed independently by learners that is separate from teaching, practice, exploration and other activities that learners complete with direction from, and formative assessment by, teachers.

An assignment is issued to learners as an **Assignment Brief**. Assignment briefs are used to formally record what work you are required to complete and submit for your coursework units. Assignment briefs will be issued by your teacher at the point in the unit when you have been taught all of the relevant information, and they feel you are ready to formally start producing your assessment evidence independently.

An assignment brief will contain important information about what you must achieve and by when. It is vital that you keep this handy and refer to it regularly when producing your evidence.

Each assignment brief will contain the following information:

- Qualification, unit and assignment titles;



- The learning aims being assessed;
- A vocational context or scenario, which helps to inform how you should set out your work;
- The specific assignment tasks to be completed;
- A checklist of evidence that you need to produce and the assessment criteria that you must meet;
- Suggested sources of information that you might want to refer to;
- Details of who will be assessing the work;
- The start date for the assignment;
- The submission deadline for the assignment.

There may be specific observed practical components during the assignment period. Assignments can be divided into tasks and may require several forms of evidence. A valid assignment will enable a clear and formal assessment outcome based on the assessment criteria.

Coursework Assessment decisions

Assessment decisions are based on the specific criteria given in each unit and set at each grade level; **Pass, Merit, or Distinction**. The way in which individual units are written provides a balance of assessment of understanding, practical skills and vocational attributes appropriate to the purpose of qualifications. When a learner has completed all the assessment for a unit then the teacher will give a grade for the unit. This is given simply according to the highest level for which the learner is judged to have met all the criteria.

The Importance of Deadlines

The ability to meet deadlines is a highly valuable skill particularly throughout your professional life. As vocational qualifications are designed to reflect real-world employment it is expected that students effectively meet deadlines. **If a student does not meet an assignment deadline they risk failing the unit and the course.** Learners may be given authorised extensions for legitimate reasons, such as illness at the time of submission but this must be supported with a Doctors Certificate.

With vocational qualifications, you are allowed one submission of your evidence. Once submitted your work is graded. If you have failed to meet any of the assessment criteria there may be an opportunity for you to improve and resubmit the work. However, this decision will be made by your teacher and Lead IV (Mr Cardew) and you will only have an additional 15 working days to complete and submit the work. Therefore, it is certainly in your best interest to fulfil the criteria in your first submission. Please remember that if your work was handed in late, then **no** resubmission will be awarded.

It is essential that you treat all deadlines as concrete and final. The deadlines for all assignments will be on the front of your assignment brief. It is your responsibility to check and keep track of your deadlines.

Plagiarism and Malpractice

In order to achieve the qualification, you must produce your own work. Plagiarising the work of others **will not be** accepted and will mean that you fail the unit and/or course.

Plagiarism is the practice of taking someone else's work or ideas and passing them off as your own, with or without their consent. Plagiarism goes beyond just copying someone else's work word-for-word. It can involve taking their ideas, paraphrasing or receiving assistance from a third party, which you do not acknowledge.



The following list is not exhaustive, but it gives you a good guide as to what might be considered plagiarism or malpractice. Other instance of malpractice may be considered by The School at its discretion.

- ⌚ Copying (including the use of AI) without proper referencing of where you got the information.
- ⌚ Paraphrasing another's work by altering a few words and changing their order or by closely following the structure of someone else's idea or argument.
- ⌚ Collaborating with/receiving help from another person on an assignment to produce work together that is submitted as individual learner work.
- ⌚ Impersonation by pretending to be someone else in order to produce work for another or arranging for another to take one's place in an assessment/examination.
- ⌚ Deliberate destruction of another's work.
- ⌚ Fabrication of results or evidence.
- ⌚ False declaration of authenticity in relation to the contents of your portfolio or coursework.
- ⌚ See the following links for more information on assessment malpractice & plagiarism:

[JCQ plagiarism in assessments,](#)

[AI use in assessments](#)

[LPGS Malpractice Policy](#)

Calculation of Final Qualification Grade

OCR will combine these unit points to calculate your final grade. The table below shows the UCAS points available for each grade achieved.

	Extended Certificate	
	360 GLH	
	Grade	UCAS Points
Pass	P	16
Merit	M	32
Distinction	D	48
Distinction*	D*	56

Higher Education & Careers

Level 3 vocational science courses have earned a worldwide reputation as a premier applied learning qualification because they provides learner with a clear route into their career.

This qualification is primarily designed to support progression to Applied Science and related employment after further study at university. However, it also supports learners progressing directly to employment, as the transferable knowledge, understanding and skills will give learners an advantage when applying for a range of entry-level industry training programmes and/or Higher Apprenticeships in areas such as Laboratory Technician or Medical Technician.



Here are just a few examples of possible career options and routes to higher education for students taking Applied Science.

- **BSc in Biomedical Science** For example, if taken alongside an A Level in Psychology
- **BSc in Life Sciences** For example, if taken alongside a Pearson BTEC Level 3 Diploma in Health and Social Care
- **BSc in Forensic Science** For example, if taken alongside an A level in Psychology
- **BSc in Psychology** For example, if taken alongside an A Level in Psychology
- **BSc in Environmental Science** For example, if taken alongside an A Level in Geography
- **BSc in Nursing or Midwifery** For example, if taken alongside a Pearson BTEC Level 3 Extended Certificate in Health and Social Care or A Levels in Psychology and Sociology
- **BSc in Occupational Health** For example, if taken alongside a Pearson BTEC Level 3 Diploma in Health and Social Care
- **BSc in Sport Science** For example, if taken alongside a Pearson BTEC Level 3 in Sport or A-Level PE

Speak to your teachers or the school's Career Advisor (Ms Hayley Hayden) if you would like to discuss higher education opportunities with your Applied Science qualifications

Staff list and contact

Staff Member	Email Address
Mr Cardew (Course Leader)	hca@lpgs.bromley.sch.uk
Ms Simms	nsi@lpgs.bromley.sch.uk
Mr Burnett	sbu@lpgs.bromley.sch.uk



Appendices

1. Assessment entry policy

Students will be entered for external assessments when:

They have:

- completed required teaching content
- demonstrated readiness via trial exams or tracked assessments/ coursework
- met attendance expectations to be considered ready for assessment (see [Sixth Form Enrolment and Progress Policy](#))

2. Resit eligibility criteria

Students may be entered for a resit if they meet:

A. Performance Criteria

Awarded a U, Near Pass (R) or a grade below target.

B. Commitment Criteria

- Maintain high attendance (e.g. 90%+)
- Meet coursework deadlines

C. Engage with intervention

Attend targeted support and revision sessions

Failure to meet these may result in:

- withdrawal from resit entry
- student-funded entry instead of school-funded

See the following link for more information:

[LPGS6 Level 3 Vocational Examinations and Resits Entry Policy.docx](#)



3. Number of resit opportunities

Students are permitted 1 initial attempt and 2 resits (time allowing)

4. Best grade rule

The highest grade achieved counts towards the final qualification

5. Internal assessment (coursework) and resubmissions

Students are permitted 1 resubmission per assignment if they meet the original deadline.

Resubmission deadlines are within 15 working days.

6. Withdrawal from resit entry

Students may be withdrawn if they:

- fail to attend intervention
- have been placed on a Stage 4 Learning contract and failed to meet the targets set
- do not complete required preparation



Further reading

- <https://www.alevelphysicsonline.com/>
- <https://isaacphysics.org/alevel>
- <https://www.physicsandmathstutor.com/past-papers/a-levelphysics/>
- <https://www.s-cool.co.uk/a-level/physics>
- <https://www.ocr.org.uk/qualifications/as-and-a-level/physicsa-h156-h556-from-2015/>
- <http://physicsnet.co.uk/a-level-physics-as-a2/>
- <http://alevelphysics.org.uk/>
- https://en.wikibooks.org/wiki/OCR_A-Level_Physics
- <https://www.s-cool.co.uk/a-level/chemistry>
- <https://www.rsc.org>
- <http://chemguide.co.uk>
- <https://www.youtube.com>
- <https://ocr.org.uk/qualifications/as-and-a-level/chemistry-ah032-h432-from-2015/>
- <https://studywise.co.uk/a-level-revision/>
- <http://www.ibiblio.org/virtualcell/index.htm> – An interactive cell biology site
- <http://www.accessexcellence.org/RC/VL/GG> – A web site showing illustrations of many processes of biotechnology
- <http://www.uq.oz.au/nanoworld> – Visit the world of electron microscopy
- <http://www.dnai.org/a/index.htm> – Explore the genetic code
- <http://nobelprize.org> – Details of the history of the best scientific discoveries
- <http://nature.com> – The site of the scientific journal
- <http://royalsociety.org> – Podcasts, news and interviews with scientists about recent scientific developments
- <http://www.nhm.ac.uk> – The London Natural History Museum's website with lots of interesting educational material
- <http://www.bmj.com> – The website of the British Medical Journal
- http://www.bbc.co.uk/news/science_and_environment – The BBC news page for Science and the Environment