

AQA A level Physics: 7408

YEAR 12 LEARNING JOURNEY

Welcome: Q&A

Parents information Evening:
September 2026

Parents Evening :
December 2026

AUTUMN 2: Section 3 - Waves

2 Nov – 18 Dec 2026

• KNOWLEDGE

- Introduction to **Waves**: progressive & standing waves, diffraction, interference and refractive index

• SKILLS

- Explain wave properties, critical angle and TIR
- **RP1 & RP2**: CPAC2, CPAC3 & CPAC4

• RETRIEVAL

- Recall of GCSE Waves theory
- Definition of tier 3 vocabulary
- EUT Waves

MA1 - NOV

WINTER 2: Section 5 - Materials

22 Feb – 26 Mar 2027

• KNOWLEDGE

- Introduction **Materials**: density, Hooke's Law, stress & strain and Young Modulus

• SKILLS

- Calculating stress/strain or energy from force-extension graph or stress-strain graph
- **RP4**: CPAC1, CPAC3 & CPAC4

• RETRIEVAL

- Recall of Hooke's Law. Low-stake literacy Quiz
- EUT Materials

Trip to Nuclear Power station: Curriculum & Destination

MOCK- MARCH

SPRING 2: Section 7 – Further Mechanics

7 Jun – 16 Jul 2027

• KNOWLEDGE

- Introduction to Further Mechanics: Circular motion, centripetal force & acceleration, SHM, SMO and Free & Force vibrations.

• SKILLS

- Create production management plan & CPD roadmap

• RETRIEVAL

- Full-spec retrieval of AS (Y12) curriculum.
- EOU Further Mechanics
- Start of independent practice of A-level Paper 1 of last 7 years.

YEAR 12 START

1

HALF TERM

AUTUMN 1: Section 1 & 2 – PP and QMP *

2 Sept – 23 Oct 2026

KNOWLEDGE

- Introduction to **Particle & Radiation Physics** and **Quantum Mechanical Phenomena**
- Particle classifications, and Wave-Particle Duality properties

• SKILLS

- Re-produce particle “tree” and explain W-P duality in e-gun.

• RETRIEVAL

- **Baseline test**, retrieval of GCSE Nuclear Physics

2 EUT PP and QMP

PP and QMP* = Particles & Radiation Physics and Quantum Mechanics Phenomena

WINTER 1: Section 4 - Mechanics

5 Jan – 12 Feb 2027

• KNOWLEDGE

- Introduction to **Mechanics**: scalars, vectors, moments, COM, SUVATS.
- Projectile motion, terminal velocity and conservation of moment & energy.

• SKILLS

- Analysis of motion graphs and solving SUVAT equations.
- **RP3**: CPAC1, CPAC2 & CPAC4

• RETRIEVAL

- Recall of GCSE Force and Motions.
- EUT Mechanics

MA2 - JAN

SPRING 1: Section 6 - Electricity

12 Apr – 28 May 2027

• KNOWLEDGE

- Introduction to **Electricity**: I,V, R, I_V graphs and resistivity
- Kirchoff's Law, potential difference and Internal resistance of circuits

• SKILLS

- Calculate emf, I, r, R, V and energy of circuits
- **RP 5 and 6**: CPAC1, CPAC3 & CPAC4

• RETRIEVAL

- Recall KS4 Electricity, work sheet of KS4 electricity calculation.
- EUT Electricity

MA3 - JUN

SUMMATIVE ASSESSMENT — Sat at the end of Year 12 in June

Examination: Paper 1

- Written exam
- 2 hours
 - 85 marks
 - 25 marks- multiple questions, 60 marks long questions.

AO1–AO3: State, Define, Explain, Apply, Analyze & Evaluate.

Covers Content Section 1–6 including Practicals (CPACs).

NEA: Practical Endorsement / Practical Assessment

Controlled assessment of CPACs:

- RP1 to RP6 must be completed in Year 12..
- If a student misses an RP, they must arrange a catch-up session outside of regular timetabled lessons with their teacher
- At this stage of the course, students must meet at least half of the 11 CPAC sub-criteria.

GCSE

YEAR 12 — Core Component

YEAR 13 — Occupational Specialism

Destinations

AQA A level Physics: 7408

YEAR 13 LEARNING JOURNEY

Parents information Evening:
September 2026

Parents Evening:
19th and 21st January 2027

YEAR 13
START

1

HALF
TERM

HALF
TERM

HALF
TERM

HALF
TERM

HALF
TERM

5

6

AUTUMN 1 : Section 13- Astrophysics

2 Sept – 23 Oct 2026

• KNOWLEDGE

- Understanding spectral type, stellar evolution and Cosmological models

• SKILLS

- Able to construct HR diagram, explain evolution of stars, calculate distance of Astrophysical objects and explain cosmological models.
- RP7: CPAC1, CPAC2, & CPAC5.

• RETRIEVAL

- Interleaved retrieval of Year 12 contents and Section 7 EUT Astrophysics and **Paper1 booklet**.

MA1-OCT

AUTUMN 2 : Section 8 & 9- Fields.

2 Nov – 18 Dec 2026

• KNOWLEDGE

- Understanding the concept and the of theory of fields: **Gravitational, Electrical and Magnetic.**

• SKILLS

- Able to apply the concept of fields to calculate projectile of particles and application of particle projectiles.
- RP10 & RP11: CPAC1, CPAC2, & CPAC4.

• RETRIEVAL

- Low-stakes quiz on Equations
- EUT Fields and **Paper 2 booklet**

Trip to Emmauel Centre: Exam techniques

MA2-DEC

Winter 2 : Section 11- Nuclear Physics

22 Feb – 26 Mar 2027

• KNOWLEDGE

- Introduction to Nuclear Physics: understanding nuclear decay, exponential fall and half life of nuclides

• SKILLS

- Able to solve logarithmic problems and exponential decay equations. RP12: CPAC3 and CPAC5.

• RETRIEVAL

- GCSE nuclear Physics, Capacitance, exponential equations. EUT Nuclear Physics and **Paper 3 booklet**

Winter 1 : Section 10- Capacitance

5 Jan – 12 Feb 2027

• KNOWLEDGE

- Introduction to **Capacitance**

• SKILLS

- Able to solve logarithmic problems and exponential decay equations.
- RP9: CPAC1, CPAC2 & CPAC5.

• RETRIEVAL

- GCSE nuclear Physics, Capacitance, exponential equations. EUT Fields and **Paper 3 booklet**

UCAS

MA3-FEB

Spring 1 : Section 12-Thermal Physics

12 Apr – 28 May 2027

• KNOWLEDGE

- Introduction to Thermal Physics

• SKILLS

- Able to derive Equations (in Thermal Physics). RP8: CPAC 2, CPAC3 & CPAC4

• RETRIEVAL

- Exam-technique & CPAC skills

Submission of CPACS – “Paper 4”

External A level Exams: May/June
Paper1 , Paper2 & Paper 3

Leavers' & Results day

THE ASSESSMENT CRITERIA OF A-LEVEL PHYSICS

ASSESSMENT OBJECTIVE WEIGHTINGS FOR ALEVEL PHYSICS CURRICULUM

AO1: 30%	AO2: 40%	AO3: 30%
Knowledge and Understanding Demonstrate knowledge and understanding of scientific ideas, processes, techniques, and procedures (definitions, derivations, explaining core concepts).	Application Apply knowledge and understanding in theoretical and practical contexts, using qualitative and quantitative data (solving calculations, applying physics to unfamiliar scenarios).	Analysis and Evaluation Analyse, interpret, and evaluate scientific information, ideas, and evidence to make judgements, reach conclusions, and refine practical procedures (data/graph interpretation, evaluating experimental methods).

ASSESSMENT OBJECTIVE WEIGHTINGS FOR ALEVEL PHYSICS PAPERS

Exam Paper	AO1 (%)	AO2 (%)	AO3 (%)	Paper Weight (%)
Paper 1	35	45	20	34
Paper 2	35	45	20	34
Paper 3	30	30	40	32

CROSS-CURRICULAR REQUIREMENT

- Maths Skills (50% Minimum):** At least 50% of the overall A-Level marks assess mathematical skills, predominantly tested under AO2 and AO3.
- Practical Skills (20% Minimum):** At least 20% of overall marks assess practical techniques, procedures, and data analysis—heavily tested in Paper 3 but present across all papers.
- Literacy & Communication Skills:** Students must structure logical, coherent scientific explanations, describe experimental procedures with justified equipment choices, and decode complex questions to identify implied physics concepts in novel contexts.

GCSE

YEAR 12 —Section 1-6+ Section 7

YEAR 13 — Section 8-12 + Option A

Destinations