AQA Physics at a glance

This qualification is linear so all exams are at the end of the A-level course in Year 13. The course builds on many of the concepts from GCSE. Maths skills are emphasised.

Subject content

Core content

1 Measurements and their errors
2 Particles and radiation
3 Waves
4 Mechanics and materials
5 Electricity
6 Further mechanics and thermal physics
7 Fields and their consequences
8 Nuclear physics
+ Optional topic – Engineering Physics

Physics summer work:

https://isaacscience.org/account?authToken=ACKFWQ

Sign up to Isaac Physics using your **Berkhamsted.com** address (if you have one, if not your own email). Show your commitment by doing as many of the question boards as you can. Earn your first Sixth Form Golds by finishing them. HINT - Get your sig figs right!

+ READ A BOOK – get that intellectual curiosity https://isaacphysics.org/account?authToken=FBYHWB going 📖

Some suggestions on the reading list on The Hub

Assessments

Paper 1
What's assessed • Any content from topics 1–5 (and 6.1 periodic motion)
Assessed • written exam: 2 hours • 85 marks • 34% of A-level
Questions • 60 marks of short and long answer questions and 25 multiple choice questions

Paper 2
What's assessed • Sections 6, 7 and 8 (assumed knowledge from sections 1-5)
Assessed • written exam: 2 hours • 85 marks • 34% of A-level
Questions • 60 marks of short and long answer questions and 25 multiple choice questions

Paper 3
What's assessed • Section A: Compulsory section: Practical skills and data analysis • Section B: Optional topic - Astrophysics
Assessed • written exam: 2 hours • 80 marks • 32% of A-level
Questions • 45 marks of short and long answer questions on practical experiments and data analysis • 35 marks of short and long answer questions on optional topic - Engineering Physics

Practical

Understanding of Practical Physics will be examined on paper in Paper 3, like it was in IGCSE. All students must have hands-on experience of 12 Required Practicals chosen by AQA. Paper 3 will contain questions on these practicals, so they are really important. In doing them, all of the required Apparatus and Techniques are covered, such as using an oscilloscope, building circuits and computer modelling.

Actual practical skills are endorsed as a separate entity with a pass/fail. At the end of the A-level, you are holistically assessed for the following 5 competencies:

1. Follows written instructions
2. Applies investigative approaches and methods when using instruments and equipment
3. Safely uses a range of practical equipment and materials
4. Makes and records observations
5. Researches, references and reports

In addition to the 12 Required Practicals, you will record all the practical work you do, both good and bad. By the end of the course, you will be a self-sufficient experimental expert and fully prepared for practical work at university.

Further exploration

Take an interest beyond the course and read books, articles, podcasts etc

Come along to Physics Practice for British physics Olympiad competitions and homework help, our weekly problem-solving masterclass and support clinic.

Trips, visits and events

There are plenty of things to get involved, including some new plans for 2025 – don't miss out!

Visit to Williams F1