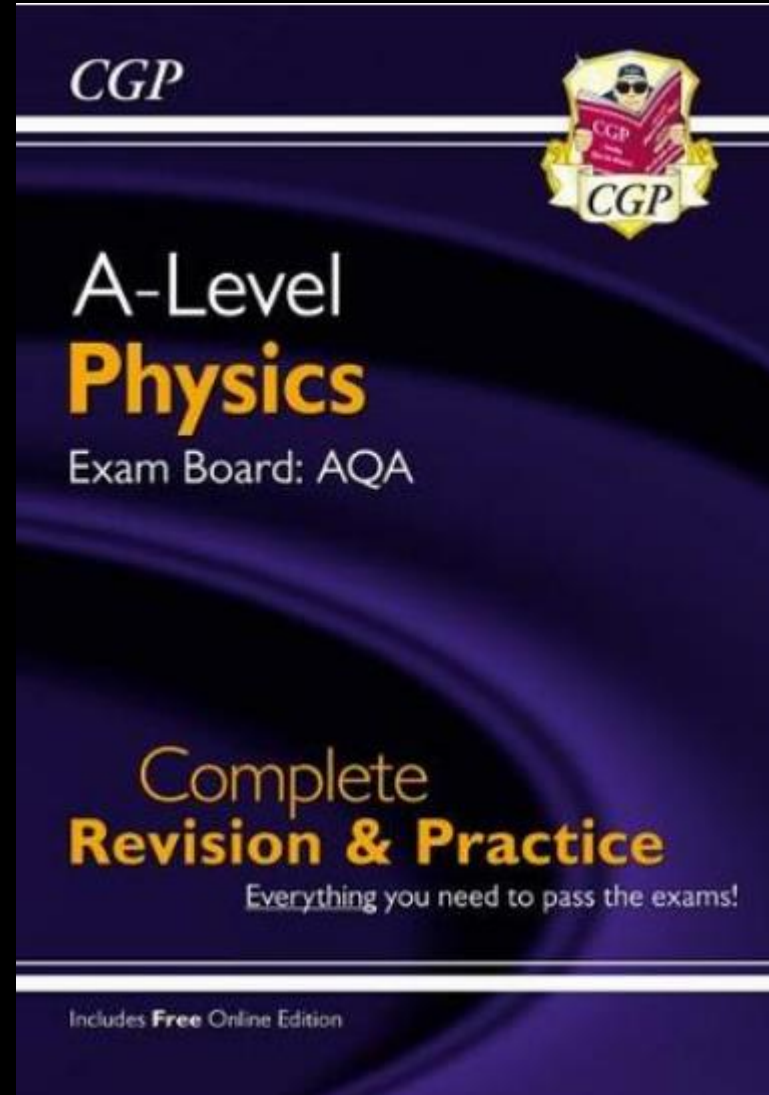
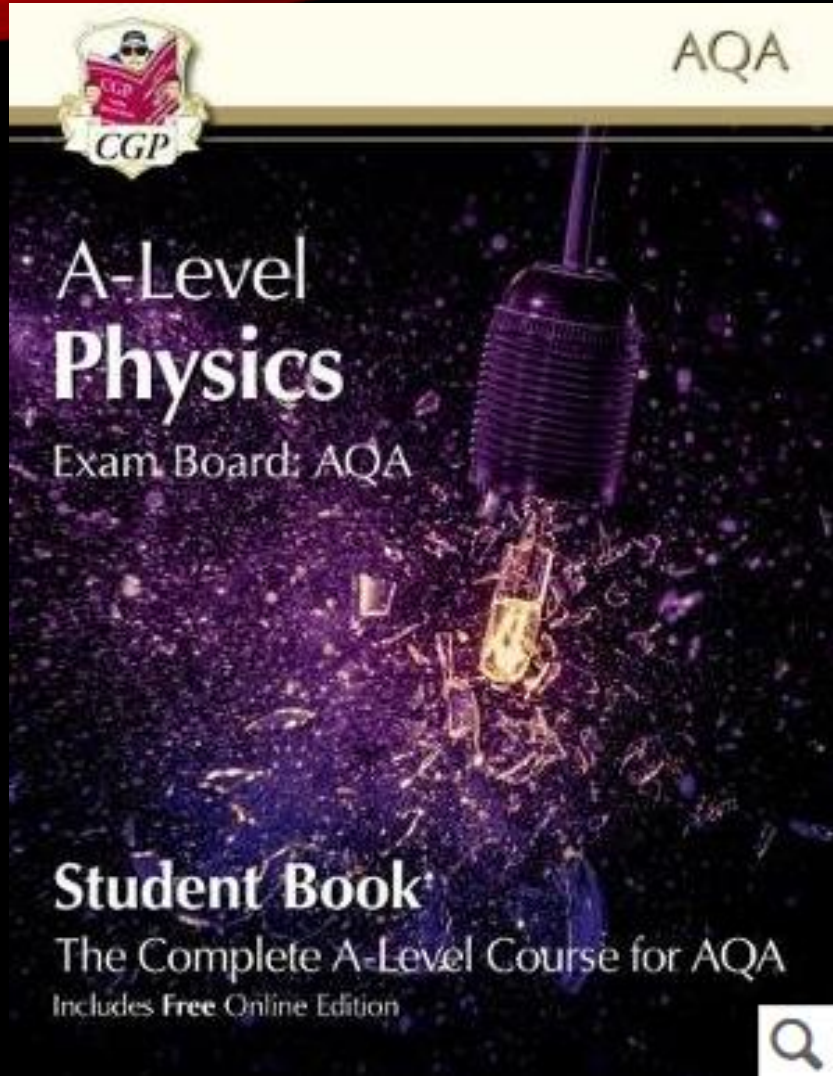




AN INTRODUCTION TO A- LEVEL PHYSICS

Mr Smith

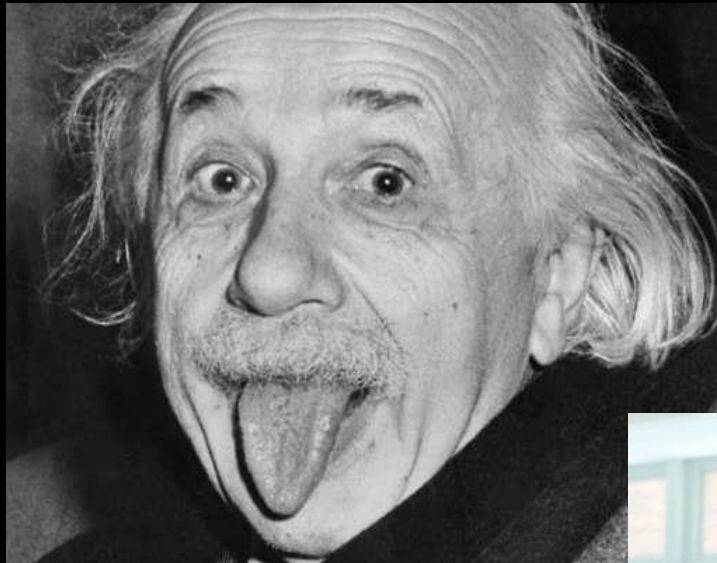
THE BOOKS



- AQA A-Level Physics
- Please ensure you have access to the CGP A-Level Physics Student Book by September

TOPICS COVERED IN YEAR 12

- Measurements and their Errors
- Particles and Radiation
- Mechanics (Forces and Motion) and Materials
- Waves
- Electricity



TOPICS COVERED IN YEAR 13

- Further Mechanics
(Circular Motion and Oscillations)
- Fields and their Consequences
(Gravitational / Electric / Magnetic)
- Nuclear Physics
- Thermal Physics
- Turning Points in Physics



Paper 1

What's assessed

Sections 1 to 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 on content.

Paper 2

What's assessed

Sections 6.2 (Thermal Physics), 7 and 8

Assumed knowledge from sections 1 to 6.1

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 on content.

- Required practicals throughout Year 12 and 13
- Not formally assessed, but need to be completed to obtain 'Practical Endorsement'
- Skills and knowledge developed through practical work assessed in Paper 3

Paper 3

What's assessed

Section A Compulsory section: Practical skills and data analysis

Section B: Students enter for one of sections 9, 10, 11, 12 or 13

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.

Y11 TRANSITION WORK

- The first official 'topic' on the course is 'Measurement and Their Errors' – focused on consolidating core mathematical and data handling skills.
- To aid the transition into Y12, and to allow quick progression onto the fascinating Particles and Radiation topic, I have put together some resources and activities which will allow you to practice and develop these core skills.
- Please ensure that by September you have;
 1. Read and completed the A-Level Induction Booklet
 2. Completed the Y11 Physics Transition Worksheets
 3. Read through the AQA Transition Guide.

FURTHER RESEARCH

If you have some spare time on your hands (let's be honest, who doesn't!), try looking up some of these resources...;

- MinutePhysics produce excellent, accessible videos to a great many A-Level standard concepts, many of which we use in lessons – their section on Relativity is brilliant!

<https://www.youtube.com/user/minutephysics>

- Our first major topic will be Particles and Radiation. Since many of you will be joining us at CERN in 2022, why not take a look over the Standard Model – how much of the universe do you recognise!?

<https://www.youtube.com/watch?v=V0KjXsGRvoA>

- I am big fan of Jim Al Khalili and have seen him talk several times on subjects such as Quantum Biology. He has produced many exceptional documentaries for the BBC, two of which have especially strong links to our AQA course. I highly recommend them!

Atom: Clash of the Titans - <https://www.youtube.com/watch?v=GOJFznzSZhM>

Entropy (Order and Disorder) - <https://www.youtube.com/watch?v=b7iuFIKmkN4&t=3112s>