

# OCR Physics A

Overview



Please could you  
sign your name on the  
sign in sheet!

Thanks



# Year 12 Modules

- Module 1 Development of Practical Skills
- Module 2 Foundations of Physics
- Module 3 Forces and Motion
- Module 4 Electrons, Waves and Photons
  
- Mock exams are taken at the end of Year 12 to assess progress.



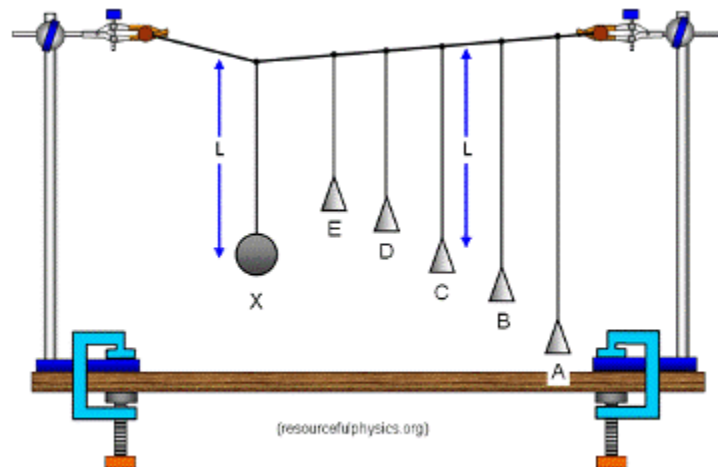
# Year 13 Modules

- Module 1 Development of Practical Skills
- Module 2 Foundations of Physics
- Module 5 Newtonian World and Astrophysics
- Module 6 Particles and Medical Physics
  
- 3 exam papers end of year 13



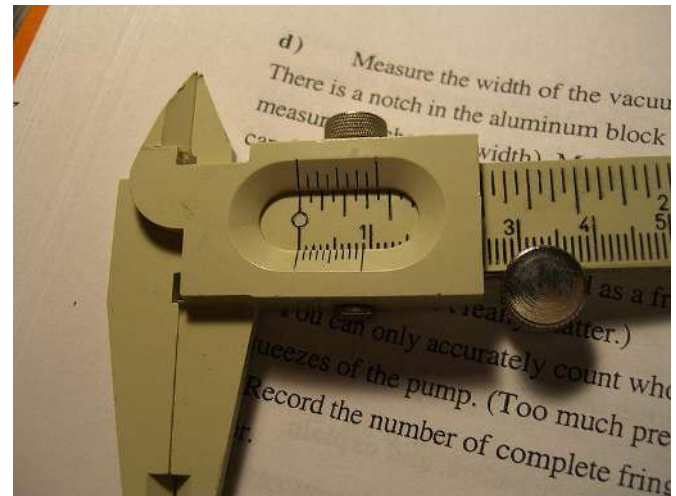
# Module 1: Development of Practical Skills in Physics

- Skills of planning, implementing, analysis and evaluation are learnt through 12 key practicals
- A practical endorsement can be gained if all are completed correctly
- **These skills are assessed in all of the final written examinations**



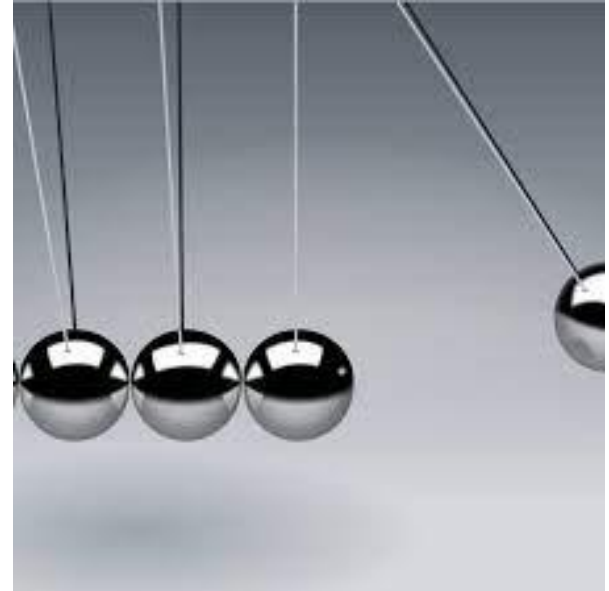
# Module 2: Foundations of Physics

- Includes:
  - Physical quantities and units
  - Scalars and vectors
  - Measurements.
  - Uncertainties



# Module 3: Forces and Motion

- Includes:
  - Motion
  - Forces in action
  - Work, energy and power
  - Materials
  - Newton's laws of motion and momentum.



# Module 4: Electrons, Waves and Photons

- Includes:
  - Charge and current
  - Energy, power and resistance
  - Electrical circuits
  - Waves
  - Quantum physics



# Module 5: Newtonian World and Astrophysics

- Includes:
  - Thermal physics
  - Circular motion
  - Oscillations
  - Gravitational fields
  - Astrophysics.





# Module 6: Particles and Medical Physics

- Includes:
  - Capacitors
  - Electric fields
  - Electromagnetism
  - Nuclear and particle physics
  - Medical imaging.



# Examinations

## End of year 13



- **Paper 1 = 2¼ hours counts for 37 % of the A-level**
- Covers modules 1, 2, 3, 5 in 15% multiple choice and 85% structured questions and extended writing covering both theory and practical skills
- **Paper 2 = 2¼ hours counts for 37% of the A-level**
- Covers modules 1, 2, 4, 6 in 15% multiple choice and 85% structured questions and extended writing covering both theory and practical skills
- **Paper 3 = 1 ½ hours counts for 26% of the A-level**
- Covers modules 1 – 6 in 100% structured questions and extended writing covering both theory and practical skills



# Requirements

- You need a **minimum** of grade 66 at GCSE Science and a **minimum** of grade 6 at GCSE Maths although we recommend at least a grade 7 in both
- You must like it! Please do not do Physics because you 'have' to. You will struggle!



# Outside the Classroom

- You will be expected to do at least 5 hours of home learning for Physics each week
- Each Chapter has a Home Learning task booklet that we expect you to complete outside of the classroom and submit on the day of the assessment for that topic
- Revision sessions are available but these should be lead by you rather than your teachers



# What makes a good Physics student?

- The ability to tackle and solve problems
- Hard work and perseverance
- An enjoyment of the whole subject (not just one bit!)
- The ability to work with a use numbers extensively – Maths is the language of Physics

