

Welcome to the Southam College  
Sixth Form



# Welcome to A level Physics

# Course Outline

- ▶ Module 1: Development of practical skills in physics
- ▶ Module 2: Foundations in physics
- ▶ Module 3: Forces and motion
- ▶ Module 4: Electrons, waves and photons
- ▶ Module 5: Newtonian world and astrophysics
- ▶ Module 6: Particles and medical physics

# Exam Format

Component	Marks	Duration	Weighting	
<b>Modelling physics (01)</b>	100	2 hours 15 mins	37%	Assesses content from modules 1, 2, 3 and 5
<b>Exploring physics (02)</b>	100	2 hours 15 mins	37%	Assesses content from modules 1, 2, 4 and 6
<b>Unified physics (03)</b>	70	1 hour 30 mins	26%	Assesses content from all modules (1 to 6)

# Year by Year

- ▶ The six modules are each divided into key topics...
- ▶ Students gain practical skills throughout the course. These are assessed in the written examinations and in the practical endorsement (component 04). Activities that could count towards the practical endorsement are indicated in the specification.

# Year 12

## ▶ **Module 1: Development of practical skills in physics**

- ▶ Practical skills assessed in a written examination
- ▶ Practical skills assessed in the practical endorsement

## ▶ **Module 2: Foundations in physics**

- ▶ Physical quantities and units
- ▶ Making measurements and analysing data
- ▶ Nature of quantities

## ▶ **Module 3: Forces and motion**

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

## ▶ **Module 4: Electrons, waves and photons**

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

# Year 13

- ▶ **Module 5: Newtonian world and astrophysics**
  - ▶ Thermal physics
  - ▶ Circular motion
  - ▶ Oscillations
  - ▶ Gravitational fields
  - ▶ Astrophysics and cosmology
- ▶ **Module 6: Particles and medical physics**
  - ▶ Capacitors
  - ▶ Electric fields
  - ▶ Electromagnetism
  - ▶ Nuclear and particle physics
  - ▶ Medical imaging