ECLASSOPEDIA

Presents

IGCSE PHYSICS

COMPREHENSIVE CURRICULUM GUIDE

Academic Year 2026

Cambridge IGCSE | International General Certificate of Secondary Education

Syllabus Code: 0625 / 0972 | Grades 9 & 10 | Ages 14–16

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About Eclassopedia

Eclassopedia is a premier online education platform dedicated to providing world-class academic support for students pursuing international curricula including Cambridge IGCSE, A-Level, IB, and more. Founded with the mission of making quality education accessible to every learner regardless of geographical location, Eclassopedia has grown to serve thousands of students across India, the Middle East, Southeast Asia, and beyond.

Our team of highly qualified and experienced educators are graduates of top universities worldwide. They bring not only subject expertise but also a deep understanding of the Cambridge Assessment International Education (CAIE) examination framework. At Eclassopedia, we believe that every student deserves personalised attention, clear concept delivery, and strategic exam preparation.

Why Choose Eclassopedia?

Expert tutors with Cambridge-certified expertise and proven track records
Personalised learning plans tailored to each student's pace and learning style
Comprehensive study materials, past papers, and model answers aligned to CAIE syllabus
Live interactive sessions with recorded backup for flexible revision
Regular mock tests and performance analytics to track progress
Dedicated student support team available 7 days a week
Affordable fee structures with scholarship opportunities for deserving students

This IGCSE Physics Curriculum Guide for 2026 has been meticulously crafted by our physics faculty to provide students, parents, and educators with a thorough roadmap of what to expect throughout the course. It covers the full syllabus content, topic-by-topic breakdowns, teaching strategies, assessment structure, practical work guidance, and examination tips to ensure the highest possible outcomes.

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Table of Contents

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1. Introduction to IGCSE Physics

Physics is the fundamental science that underpins our understanding of the natural world, from the behaviour of subatomic particles to the dynamics of galaxies. The Cambridge IGCSE Physics course is designed to offer students a comprehensive foundation in core physical concepts and principles, cultivating critical thinking, analytical reasoning, and practical problem-solving skills.

The International General Certificate of Secondary Education (IGCSE) in Physics, governed by Cambridge Assessment International Education (CAIE), is globally recognised as a rigorous and prestigious qualification. It is accepted by universities, employers, and academic institutions worldwide as a benchmark of academic excellence at the secondary education level.

1.1 Why Study IGCSE Physics?

Studying physics at the IGCSE level opens doors to a wide range of future academic and career pathways. Students who excel in IGCSE Physics are well-prepared for A-Level Physics, engineering, medicine, computing, environmental sciences, architecture, and numerous STEM-based professions. The subject develops transferable skills including logical reasoning, data analysis, scientific communication, and methodical problem-solving.

- Develops strong analytical and quantitative reasoning skills
- Provides an essential foundation for Cambridge A-Level Physics and beyond
- Recognised and valued by top universities globally
- Prepares students for careers in engineering, medicine, research, and technology
- Encourages curiosity about the physical world and scientific inquiry

1.2 Course Duration & Target Age Group

Parameter	Details
Course Level	Cambridge IGCSE (Secondary Education)
Target Age Group	14–16 years (Grades 9 and 10)
Duration	2 Academic Years
Syllabus Code	0625 (Core & Extended) / 0972 (Core only)
Examining Body	Cambridge Assessment International Education (CAIE)
Examination Session	May/June and October/November 2026

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2. Syllabus Overview & Aims

The Cambridge IGCSE Physics syllabus for 2026 is structured around five major thematic units, each encompassing a range of subtopics. The syllabus is designed to be taught over two years and is divided into Core and Extended content. Extended content, marked with the 'E' designation, includes additional depth and complexity for students aiming for higher grades (A* to C).

2.1 Overarching Aims of the Course

Cambridge IGCSE Physics aims to provide learners with the opportunity to:

1. Develop scientific knowledge and conceptual understanding through the study of physical phenomena
2. Develop an understanding of the nature and methods of science through experience and observation
3. Develop scientific skills and practical capabilities that are essential for further education and careers
4. Develop attitudes relevant to science such as concern for accuracy, objectivity, and perseverance
5. Appreciate the relationship between science and technology and their contributions to society
6. Communicate scientific ideas and findings concisely and accurately

2.2 Core vs. Extended Curriculum

The IGCSE Physics syllabus offers two pathways to accommodate different learner abilities and academic goals:

Pathway	Description
Core Curriculum	Covers fundamental physics concepts. Suitable for students targeting grades C to G. Assessed in Papers 1 and 3.
Extended Curriculum	Covers all Core content plus additional extended topics for greater depth. Suitable for grades A* to G. Assessed in Papers 2 and 4.
Combined Science (0972)	A modified version designed for students studying physics as part of a broader combined sciences course.

2.3 Overview of the Five Main Units

Unit	Topic Area	Approximate Teaching Weeks
Unit 1	General Physics	6–7 weeks

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Unit 2	Thermal Physics	5–6 weeks
Unit 3	Properties of Waves	6–7 weeks
Unit 4	Electricity & Magnetism	8–9 weeks
Unit 5	Atomic Physics	4–5 weeks

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3. Unit 1: General Physics

General Physics forms the cornerstone of the IGCSE Physics course. It introduces students to the measurement principles, physical quantities, kinematics, dynamics, energy, and the properties of matter. A thorough mastery of Unit 1 is critical as these concepts permeate every other unit in the course.

3.1 Measurements & Units

Students are introduced to the International System of Units (SI units), scalar and vector quantities, and the importance of precision and accuracy in scientific measurement.

- SI base units: metre (m), kilogram (kg), second (s), ampere (A), kelvin (K), mole (mol), candela (cd)
- Derived units including Newton (N), Joule (J), Watt (W), Pascal (Pa), and Coulomb (C)
- Measurement tools: rulers, vernier callipers, micrometer screw gauges, stopwatches, top-pan balances
- Significant figures, rounding, and estimation in physical calculations
- Scalar quantities (mass, speed, energy) vs. vector quantities (force, velocity, displacement)

3.2 Motion

This section covers kinematics — the description of motion without considering its causes. Students learn to define and calculate key quantities such as speed, velocity, and acceleration, and to interpret motion graphs.

- Distance, displacement, speed, velocity, and acceleration — definitions and units
- Uniform and non-uniform motion
- Distance-time and speed-time graphs — construction, interpretation, and calculation of gradients and areas
- Equations of uniformly accelerated motion (SUVAT): $v = u + at$, $s = ut + \frac{1}{2}at^2$, $v^2 = u^2 + 2as$
- Free fall and the effect of air resistance on terminal velocity

3.3 Mass, Weight, and Density

Students explore the distinction between mass and weight and apply concepts of density to solve problems involving regular and irregular objects.

- Mass (kg) vs. Weight (N): $W = mg$, where $g = 10$ N/kg near Earth's surface
- Gravitational field strength and its variation with location
- Density: $\rho = m/V$ — measurement of density of solids and liquids
- Flotation and Archimedes' Principle (Extended)

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3.4 Forces and their Effects

- Types of forces: contact forces (friction, normal, tension) and non-contact forces (gravity, electrostatic, magnetic)
- Newton's Laws of Motion — First, Second, Third Law with real-world applications
- Resultant forces and free body diagrams
- Moments, torque, and the principle of moments
- Stability, centre of gravity, and turning effects
- Hooke's Law: F = ke — elastic and inelastic deformation (Extended)

3.5 Energy, Work, and Power

- Forms of energy: kinetic, gravitational potential, elastic potential, thermal, chemical, nuclear, electromagnetic
- Conservation of energy and energy transfers in mechanical systems
- Work done: W = F × d (when force is parallel to motion)
- Power: P = W/t and P = Fv
- Efficiency: η = (useful energy output / total energy input) × 100%
- Renewable and non-renewable energy sources and their environmental impact

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4. Unit 2: Thermal Physics

Thermal Physics explores the nature of heat, temperature, and the kinetic theory of matter. Understanding thermal phenomena is crucial not only for IGCSE Physics but also for appreciating everyday technologies such as refrigerators, steam engines, thermostats, and weather systems.

4.1 Kinetic Molecular Model of Matter

The kinetic theory provides a microscopic explanation of the macroscopic properties of solids, liquids, and gases. Students learn to use particle models to explain changes of state, pressure in gases, and thermal expansion.

- States of matter: solid, liquid, and gas — arrangement, motion, and energy of particles
- Brownian motion as evidence for the kinetic theory
- Evaporation vs. boiling — molecular explanations
- Gas pressure: $P = F/A$ — relationship between pressure, volume, and temperature
- Boyle's Law (pV = constant at fixed temperature) and Charles's Law (Extended)

4.2 Thermal Properties of Matter

- Thermal expansion of solids, liquids, and gases — applications and consequences
- Specific heat capacity: $Q = mc\Delta T$ — definition, SI unit (J/kg°C), and calculation
- Specific latent heat of fusion and vaporisation: $Q = mL$
- Heating and cooling curves — temperature plateaus during changes of state

4.3 Transfer of Thermal Energy

- Conduction: particle vibration transfer in solids — conductors vs. insulators
- Convection: density-driven fluid circulation — applications in domestic heating, sea breeze
- Radiation: emission and absorption of infrared radiation by different surfaces
- Practical applications: vacuum flasks, greenhouse effect, solar panels, double-glazed windows

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5. Unit 3: Properties of Waves

Waves are fundamental to modern technology and communication. This unit covers the general properties of waves, sound waves, and the electromagnetic spectrum, including light — its reflection, refraction, and applications.

5.1 General Wave Properties

- Transverse vs. longitudinal waves — direction of oscillation and direction of energy transfer
- Key terms: amplitude, wavelength (λ), frequency (f), period (T), wave speed (v)
- Wave equation: $v = f\lambda$
- Wavefronts and rays — ripple tank demonstrations
- Reflection, refraction, and diffraction of waves

5.2 Light and Reflection

- Reflection of light: angle of incidence = angle of reflection
- Properties of images formed in plane mirrors — virtual, upright, same size, laterally inverted
- Total internal reflection (TIR) and critical angle — optical fibres, endoscopes, diamonds
- Converging and diverging lenses — ray diagrams and applications (camera, eye, magnifying glass)

5.3 Refraction of Light

- Snell's Law: $n_1 \sin \theta_1 = n_2 \sin \theta_2$ (Extended)
- Refractive index: $n = \sin i / \sin r = c / v$
- Applications: lenses in glasses, cameras, projectors, microscopes

5.4 Electromagnetic Spectrum

The electromagnetic spectrum encompasses a vast range of wave types with different frequencies, wavelengths, and applications.

Type	Wavelength Range	Key Application
Radio Waves	1 mm – 100 km	Broadcasting, communications
Microwaves	1 mm – 10 cm	Satellite TV, cooking
Infrared	700 nm – 1 mm	Remote controls, thermal imaging
Visible Light	400 nm – 700 nm	Vision, photography
Ultraviolet	10 nm – 400 nm	Sterilisation, sunburn

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X-Rays	0.01 nm – 10 nm	Medical imaging, security
Gamma Rays	< 0.01 nm	Cancer treatment, sterilisation

5.5 Sound Waves

- Sound as a longitudinal pressure wave — compressions and rarefactions
- Speed of sound in different media (solid > liquid > gas)
- Frequency range of human hearing: 20 Hz – 20,000 Hz
- Ultrasound: frequency > 20 kHz — uses in sonar, medical scanning, cleaning
- Reflection of sound (echoes) and applications in echolocation

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6. Unit 4: Electricity & Magnetism

Electricity and Magnetism is the most extensive unit in the IGCSE Physics course and carries the highest weighting in examinations. It covers electrostatics, current electricity, electric circuits, electromagnetic induction, and the motor effect, providing the theoretical basis for countless modern technologies.

6.1 Electrical Quantities

- Electric charge (Coulombs), electric current (Amperes), potential difference/voltage (Volts)
- Conventional current direction vs. electron flow direction
- Ohm's Law: V = IR — resistance in Ohms (Ω)
- Factors affecting resistance: material, length, cross-sectional area, temperature
- I-V characteristics of resistors, filament lamps, and diodes

6.2 Electric Circuits

- Series circuits: same current throughout, voltages add up, total resistance = sum of individual resistances
- Parallel circuits: same voltage across each branch, currents add up, $1/R_{total} = 1/R_1 + 1/R_2 + ...$
- Potential divider circuits and their applications (Extended)
- Electrical power: $P = IV = I^2R = V^2/R$ and energy: $E = Pt$
- Circuit symbols and conventions — drawing and interpreting circuit diagrams
- Fuses and circuit breakers — safety devices and how they work

6.3 Electrostatics

- Charging by friction, contact, and induction
- Conductors and insulators — role in charge distribution
- Electric field lines and their interpretation
- Hazards of static electricity (fuel tankers, lightning) and useful applications (photocopiers, inkjet printers)

6.4 Magnetism

- Magnetic field patterns around bar magnets and current-carrying conductors
- The motor effect: F = BIL — force on a current-carrying conductor in a magnetic field
- The d.c. motor — commutator, brushes, and armature operation
- Electromagnetic induction — Faraday's and Lenz's Laws (Extended)

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- The a.c. generator — principles and differences from d.c. motor
- Transformers: Vp/Vs = Np/Ns — step-up and step-down transformers and the National Grid

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5. Unit 5: Atomic Physics

Atomic Physics introduces students to the structure of the atom, radioactive decay, nuclear reactions, and the safe use of radioactive materials. It bridges classical physics with modern nuclear science and has profound implications for medicine, energy production, and national security.

7.1 The Nuclear Model of the Atom

- Development of atomic models: Thomson's plum pudding → Rutherford's nuclear model → Bohr's model
- Protons, neutrons, electrons — their charges, masses, and relative positions
- Atomic number (Z), mass number (A), and neutron number (N = A – Z)
- Isotopes — same protons, different neutrons — examples and significance
- Nuclear notation: $^{A}_{Z}X$

7.2 Radioactivity

Radioactive decay is a spontaneous and random process in which an unstable nucleus emits radiation to become more stable. Students learn to distinguish between three types of nuclear radiation.

Type	Nature	Penetrating Power & Stopping Material
Alpha (α)	2 protons + 2 neutrons (He nucleus)	Low — stopped by a sheet of paper
Beta (β)	Fast-moving electron from nucleus	Medium — stopped by a few mm of aluminium
Gamma (γ)	High-frequency electromagnetic radiation	High — reduced by thick lead or concrete

- Ionising effects of alpha, beta, and gamma radiation — health risks and precautions
- Background radiation — sources: cosmic rays, rocks (radon gas), food, medical procedures
- Uses of radioactivity: carbon dating, medical tracers, cancer treatment (radiotherapy), smoke detectors

7.3 Nuclear Reactions

- Radioactive decay equations — balancing atomic and mass numbers
- Alpha decay: A reduces by 4, Z reduces by 2
- Beta decay: A stays same, Z increases by 1
- Half-life: the time for half the radioactive nuclei in a sample to decay
- Half-life calculations from decay curves and data tables

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- Nuclear fission and fusion — comparison, energy release, and applications (Extended)
- Dangers of nuclear radiation: irradiation vs. contamination

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8. Practical Work & Laboratory Skills

Practical work is an integral component of IGCSE Physics. It develops the skills of scientific investigation — planning, observing, recording, processing, and evaluating — which are assessed in Paper 5 (Practical) and Paper 6 (Alternative to Practical). At Eclassopedia, practical skills are reinforced through virtual lab simulations, guided investigations, and detailed written practical reports.

8.1 Key Practical Skills Developed

- Planning and designing controlled experiments with clear variables (independent, dependent, controlled)
- Safe and appropriate use of laboratory equipment and measuring instruments
- Recording data systematically in clearly labelled tables with correct units
- Plotting accurate and well-labelled graphs with appropriate scales and best-fit lines
- Calculating gradients, intercepts, and areas under graphs
- Identifying sources of error (random and systematic) and suggesting improvements
- Drawing valid, evidence-based conclusions from experimental results

8.2 Core Practical Experiments

The following experiments are either required by the syllabus or are commonly examined in the Practical Paper:

- Measurement of density using a displacement can and vernier callipers
- Investigation of Hooke's Law — spring extension vs. load
- Free fall experiment to determine gravitational field strength (g)
- Specific heat capacity of a metal block using an electrical heater
- Determination of the refractive index of glass using a glass block
- Electrical circuit investigations — series and parallel combinations
- Verification of Ohm's Law using variable resistors and ammeters/voltmeters
- Investigation of the factors affecting resistance
- Radioactive decay simulation using dice (to model half-life)

Eclassopedia's Virtual Lab Programme

Since on-site laboratories may not always be accessible to all students, Eclassopedia provides:
• Interactive virtual lab simulations covering all core IGCSE practicals
• Video demonstrations of standard experiments by our physics faculty
• Guided practical write-up templates in CAIE format
• Mock Practical Paper 5 and Paper 6 sessions with full model answers
• Live problem-solving workshops focussed on graph plotting and error analysis

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9. Assessment Structure

The Cambridge IGCSE Physics assessment is composed of written examination papers and practical components. Students sitting Extended papers have access to grades A* through G, while Core paper students can achieve grades C through G. All papers are sat externally and marked by Cambridge examiners.

9.1 Examination Papers Overview

Paper	Type	Duration & Marks
Paper 1 (Core)	Multiple Choice — 40 questions	45 minutes | 40 marks
Paper 2 (Extended)	Multiple Choice — 40 questions	45 minutes | 40 marks
Paper 3 (Core)	Structured written questions	1 hr 15 min | 80 marks
Paper 4 (Extended)	Structured written questions	1 hr 15 min | 80 marks
Paper 5	Practical Test	1 hr 15 min | 40 marks
Paper 6	Alternative to Practical (written)	1 hr | 40 marks

9.2 Assessment Objectives

Cambridge IGCSE Physics assesses three distinct Assessment Objectives (AOs):

- AO1 – Knowledge and Understanding (approx. 50%): Recall of facts, principles, terminology, and definitions
- AO2 – Handling Information and Solving Problems (approx. 30%): Application of knowledge to novel situations, data handling, and calculations
- AO3 – Experimental Skills and Investigations (approx. 20%): Planning, performing, recording, and evaluating practical work

9.3 Grade Boundaries & Descriptors

Cambridge IGCSE uses an 8-point grading scale from A* to G. While exact grade boundaries are determined after each examination series, the following descriptors broadly characterise each grade:

Grade	Descriptor
A*	Outstanding mastery of all core and extended content with near-perfect accuracy in complex calculations
A	Excellent conceptual understanding and strong performance across all units

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B	Good knowledge with reliable application to unseen problems and competent practical skills
C	Satisfactory understanding of core content and ability to complete standard calculations
D–G	Partial knowledge of core topics with limited accuracy in structured questions

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10. Study Strategies & Exam Preparation

Success in IGCSE Physics requires a combination of conceptual understanding, mathematical fluency, and strategic exam technique. At Eclassopedia, we advise our students to adopt the following evidence-based study strategies throughout the two-year course.

10.1 Topic-by-Topic Mastery Approach

Rather than attempting to cover the entire syllabus superficially, students are encouraged to achieve genuine mastery of each topic before progressing to the next. This builds a solid scaffolding of knowledge that makes it easier to understand subsequent topics.

7. Attend the live Eclassopedia session and take structured notes
8. Review class notes within 24 hours using the spaced repetition technique
9. Complete end-of-topic questions from the Cambridge endorsed textbook
10. Attempt at least 3 past paper questions on the specific topic
11. Mark your own work against Cambridge mark schemes and identify error patterns
12. Request a one-to-one session with your Eclassopedia tutor to address remaining doubts

10.2 Past Paper Practice

Cambridge past papers are the single most valuable revision resource for IGCSE Physics. Students should begin structured past paper practice from the end of Year 9 onwards and intensify in the 3 months leading up to examinations.

- Attempt full timed past papers under exam conditions — no notes, no interruptions
- Mark papers using the official Cambridge mark scheme, not approximate guesses
- Maintain an error log: write down every mark dropped and the reason why
- Revisit the error log weekly and attempt similar questions until accuracy improves
- Focus on Papers 3 and 4 (structured questions) as they account for the most marks

10.3 Mastering Physics Calculations

Many students find the mathematical aspects of IGCSE Physics challenging. Developing confidence with formulae and calculations requires deliberate, repeated practice.

- Memorise all required formulae — create a formula sheet and pin it above your study desk
- Always write out given information, required quantity, and chosen formula before calculating
- Show all working in examination — even if the final answer is wrong, method marks are awarded
- Always include units in every step of a calculation
- Practice unit conversions: km/h to m/s, kJ to J, cm to m, etc.
- Use significant figures consistently and round only at the final answer

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Top 5 Examination Tips from Eclassopedia Physics Faculty

1. Read every question twice before writing — misreading is the most common source of errors
2. For 6-mark structured questions, write one full sentence per mark to maximise scoring
3. Always use scientific terminology (e.g., 'potential difference' not 'voltage') in written answers
4. In graph questions, select a gradient triangle covering at least half the line length
5. In practical papers, suggest 'use a data logger' or 'repeat and average' as improvements

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11. Teaching Methodology at Eclassopedia

Eclassopedia employs a holistic and student-centred teaching methodology that blends conceptual clarity, application-based learning, and structured examination preparation. Our Physics programme for IGCSE is conducted by experienced tutors who understand not only the subject content but also the nuances of the Cambridge marking philosophy.

11.1 Live Interactive Classes

Each Eclassopedia Physics lesson is a live, interactive session conducted via our dedicated virtual classroom platform. Classes are limited to small groups to ensure every student receives individual attention and can participate freely.

- Conceptual explanation with animated diagrams, simulations, and worked examples
- Regular comprehension checks through quick polls, Q&A rounds, and mini-quizzes
- Problem-solving walkthroughs using Cambridge-style questions
- Breakout rooms for peer collaboration on challenging problems
- All sessions are recorded and available for review within 24 hours

11.2 Personalised Learning Plans

At the beginning of the course, every student undergoes a diagnostic assessment to identify their current level of understanding in each unit. Based on the results, our academic team creates a personalised learning plan that allocates appropriate time and resources to each area.

- Diagnostic test at the start of each academic term
- Individual feedback reports shared with students and parents after each monthly assessment
- Priority topic identification for students lagging in specific areas
- Advanced enrichment content for students who complete core material ahead of schedule

11.3 Structured Revision Programme

In the months leading up to examinations, Eclassopedia delivers an intensive structured revision programme. The revision programme includes:

- Unit-by-unit revision bootcamps covering all examinable content
- Full-length mock examinations under timed, exam-condition settings
- Detailed mark-scheme analysis workshops to understand how marks are awarded
- Targeted sessions on the Alternative to Practical paper (Paper 6)
- Final exam strategy sessions — time management, question selection, and presentation

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12. Parent & Student Support

Eclassopedia firmly believes that academic success is a joint effort between educators, students, and parents. We provide transparent, responsive, and comprehensive support structures to keep all stakeholders engaged and informed throughout the course.

12.1 Parent Communication

- Monthly progress reports detailing attendance, topic coverage, and performance in assessments
- Termly parent-tutor meetings (via video call) to discuss student progress in detail
- Real-time grade tracking accessible via the Eclassopedia student portal
- Instant notifications for missed sessions, upcoming assessments, or significant progress milestones
- Dedicated parent helpline available Monday to Saturday, 9am to 8pm IST

12.2 Student Welfare & Motivation

We understand that the pressure of IGCSE examinations can be stressful for many students. Eclassopedia places equal emphasis on academic achievement and student well-being.

- Positive reinforcement culture — achievements celebrated through leaderboards and certificates
- Flexible rescheduling policy for students who miss sessions due to illness or other valid reasons
- Peer study group facilitation — students connected with others in the same cohort for collaborative learning
- Academic counselling sessions available for students experiencing examination anxiety
- 'Ask Your Tutor' feature on the portal — questions answered within 24 hours

Student Testimonial

"Before joining Eclassopedia, I was struggling with electricity and magnetism. My tutor broke down every concept so clearly and gave me loads of past paper practice. I went from a D to an A in just one term. I couldn't have done it without Eclassopedia!"

— IGCSE Physics Student, Batch 2025, Dubai

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13. Resources & Learning Materials

Eclassopedia provides students with a curated suite of learning materials, all carefully aligned to the Cambridge IGCSE Physics syllabus (0625 / 0972) for the 2026 examination series. All resources are accessible through the Eclassopedia student portal upon enrolment.

13.1 Recommended Textbooks

- Cambridge IGCSE Physics (4th Edition) — David Sang (Cambridge University Press) — HIGHLY RECOMMENDED
- Complete Physics for Cambridge IGCSE — Stephen Pople (Oxford University Press)
- Cambridge IGCSE Physics Workbook — David Sang (Cambridge University Press)
- Physics for Cambridge IGCSE: Revision Guide — Collins Cambridge IGCSE

13.2 Eclassopedia Portal Resources

Resource Type	Description
Video Lessons	Full-length recorded lessons for every topic, available 24/7 on the portal
Summary Notes	Concise, exam-focused topic summaries with key formulae and definitions
Flashcard Sets	Digital flashcards for vocabulary, formulae, and definitions — ideal for spaced repetition
Past Paper Bank	Complete collection of Cambridge IGCSE Physics past papers from 2010–2025
Mark Schemes	Official CAIE mark schemes for all past papers with annotated model answers
Exam Timer Tool	Timed online simulator for practising under exam conditions
Practical Videos	Step-by-step video demonstrations of all core practical experiments
Formula Sheet	Downloadable printable formula reference sheet for exam preparation

13.3 Useful Online Resources

- Cambridge IGCSE Physics Syllabus (official): www.cambridgeinternational.org
- SaveMyExams.co.uk — High-quality topic-based IGCSE Physics revision notes and questions
- PhET Interactive Simulations (University of Colorado) — Free virtual physics lab simulations
- Cognito (YouTube) — Concise animated IGCSE Physics revision videos

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- Eclassopedia Physics Blog — Weekly posts on tricky topics, exam tips, and concept clarifications

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14. Frequently Asked Questions

Q1: What is the difference between Core and Extended in IGCSE Physics?

Core content covers the fundamental concepts of each unit and is assessed in Papers 1 and 3. Extended content includes additional, more challenging material assessed in Papers 2 and 4. Extended students can achieve grades A* to G, while Core students are targeted at grades C to G. At Eclassopedia, we strongly recommend Extended for all students who are confident in Mathematics, as it opens more academic pathways post-IGCSE.

Q2: How many hours of study per week are recommended?

For optimal progress, we recommend 3–4 hours of guided study per week (Eclassopedia classes) plus an additional 3–4 hours of independent study and past paper practice. In the final 8 weeks before exams, independent study should increase to 8–10 hours per week.

Q3: When should students start past paper practice?

We recommend beginning structured past paper practice from the end of Term 1 of Year 10 (approximately 12 months before examinations). This gives students sufficient time to identify weaknesses, address them with their tutor, and build confidence through repeated practice.

Q4: Is there a separate practical examination for IGCSE Physics?

Yes. Students can either sit Paper 5 (a hands-on practical examination conducted at their school) or Paper 6 (Alternative to Practical — a written paper based on experimental scenarios). Students at schools without laboratory facilities most commonly sit Paper 6. Eclassopedia provides dedicated preparation for both formats.

Q5: What grades are needed for A-Level Physics or engineering?

Most reputable institutions require a minimum grade of B (preferably A or A*) in IGCSE Physics Extended for entry into Cambridge A-Level Physics or engineering-related programmes. A strong performance in IGCSE Mathematics is also essential, as mathematical skills are heavily drawn upon throughout A-Level Physics.

Q6: Does Eclassopedia offer one-to-one tutoring?

Yes. In addition to our group coaching sessions, Eclassopedia offers one-to-one tutoring packages for students who require more personalised attention. These sessions are tailored entirely to the

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individual student's needs and can be scheduled at flexible timings. Please contact our admissions team for details on pricing and tutor availability.

Q7: How do I enrol in Eclassopedia's IGCSE Physics programme?

Enrolment is simple and can be done entirely online. Visit www.eclassopedia.com, navigate to the IGCSE Physics course page, and complete the registration form. Our academic counsellors will contact you within 24 hours to discuss course options, scheduling, and fees. A free trial class is available for all new students.

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Begin Your IGCSE Physics Journey with Eclassopedia

Expert Tutors | Personalised Plans | Proven Results

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