

POST 16 SUBJECT OVERVIEW

Name of Subject - Environmental Science

Which Examination Specification is Studied for this Course? AQA Environmental Science 7447

Why should I study this course? Studying AQA A-Level Environmental Science places you at the heart of solving the defining global challenges of your generation—from climate change and biodiversity loss to sustainable resource management. This course goes far beyond basic geography or biology by taking a hands-on, systems-level look at how human activity interacts with Earth's natural systems, equipping you with real-world skills in scientific inquiry, data analysis, and field research. You'll explore cutting-edge solutions like renewable energy technologies, wildlife conservation strategies, and sustainable agriculture, preparing you directly for fast-growing careers in environmental law, green technology, sustainability consulting, and ecology. If you want a dynamic, science-backed A-Level that gives you the tools to actually protect the planet rather than just worry about it, this is the ideal choice.

Who is suitable to study this course? This course is ideal for curious, science-minded students who want to apply practical knowledge to real-world environmental issues rather than studying theory in isolation. It is particularly suited to you if:

You enjoy multi-disciplinary science: You like connecting concepts across biology, chemistry, and geography to understand complex natural systems and human impacts.

You are a critical thinker: You enjoy evaluating evidence, analyzing data, and assessing the viability of different green technologies and conservation policies.

You want to drive practical change: You are passionate about sustainability, climate action, and biodiversity, and want to learn the exact scientific mechanisms needed to solve environmental problems.

You prefer a mix of lab, field, and theory: You thrive when combining traditional classroom learning with fieldwork techniques and real-world case studies.

If you are aiming for future careers or university degrees in ecology, environmental law, renewable energy, urban planning, or sustainability consulting, this course provides the perfect foundational bridge.

What GCSE Qualifications Support the Study of this Course? To support studying AQA A-Level Environmental Science, the most important qualifications are GCSE Combined Science or Triple Sciences (Biology and Chemistry in particular) and GCSE Mathematics, as at least 10% of the A-Level marks assess mathematical skills like data analysis and statistical processing. We will expect to typically look for a Grade 4 or 5 in both Science and Maths. Additionally, GCSE Geography provides a very strong thematic foundation for topics like the physical environment and sustainability, while GCSE English Language ensures you have the extended writing skills required for scientific essay questions.

What are the Qualification Requirements for this Course?

Maths - Grade 4+

English - Grade 4+

Combined science - 4/4+ or Triple - 4+ in biology, chemistry and physics

How is the Course Delivered?

Environmental science is delivered as 5 hours per week taught lessons which are split into 2 sessions (a 3 hour lesson and a 2 hour lesson). Students are expected to complete a further 5 hours of independent study outside of lesson time. There is a wide variety of ways in which the lessons will be delivered from practical work for the practical endorsement, exam practice and Google classroom.

How is the Course Assessed? The AQA A-Level Environmental Science qualification is assessed through **two written exam papers** sat at the end of Year 13. There is no coursework; instead, knowledge of practical methods and mathematical application is tested within both papers.

Summary Comparison

Assessment Feature	Paper 1: The Physical Environment	Paper 2: The Living Environment
Topics Assessed	• The Physical Environment • Energy Resources • Pollution • Research Methods	• The Living Environment • Biological Resources • Sustainability • Research Methods
Duration	3 Hours	3 Hours
Total Marks	120 Marks	120 Marks
Qualification Weighting	50% of total A-Level	50% of total A-Level

Question Format & Style

Both papers feature the same split of question types:

- **Multiple-Choice & Short Answer:** Brief calculations, definitions, data retrieval, and short explanations.
- **Longer Structured Questions:** Multi-part data interpretation, analyzing experimental setups, and evaluating management strategies.
- **Extended Response Questions:** Longer essay-style questions (up to 25 marks) testing your synoptic understanding, evaluation skills, and logical reasoning.

Core Skill Weightings Across Mark Schemes

Across both papers, marks are allocated based on three primary Assessment Objectives (AOs):

- **AO1 (Knowledge & Understanding — ~30–35%):** Demonstrating accurate factual knowledge of environmental concepts, theories, and vocabulary.
- **AO2 (Application — ~40–45%):** Applying scientific principles to new contexts, data sets, case studies, or unseen scenarios.
- **AO3 (Analysis & Evaluation — ~25–30%):** Analyzing information, making synoptic connections across topics, evaluating environmental methods, and drawing evidence-based conclusions.

Embedded Skills Requirements:

- **Mathematics (10% Minimum):** At least 12 marks per paper assess mathematical skills equivalent to GCSE level (e.g., standard deviation, percentage changes, Simpson's Index of Diversity, calculating flow rates).
- **Practical Research Methods (15% Minimum):** At least 18 marks per paper evaluate experimental design, sampling methodologies (e.g., quadrats, transects), equipment selection, and error analysis.

What is our Recommended Subject Reading list to Support your Study? To support and deepen your study of AQA A-Level Environmental Science, a strong reading list combines core course textbooks with influential popular science books, industry publications, and reputable environmental media.

1. Essential Course Textbooks & Revision Guides

- **AQA Environmental Science A-Level (4th Edition)** by *Richard Genn* (Dragonfly Publishing) — The definitive, specification-matched textbook written specifically for this course.
- **My Revision Notes: AQA A-level Environmental Science** by *Richard Genn* (Hodder Education) — Excellent for concise summaries, key terms, and exam practice.

2. Broadening Conceptual & Environmental Science Reading

These books build synoptic understanding, real-world case studies, and critical thinking skills required for high-tier exam answers:

- ***The Uninhabitable Earth: Life After Warming*** by *David Wallace-Wells* — A powerful look at the cascading consequences of climate change, perfect for energy and atmospheric science topics.
- ***Silent Spring*** by *Rachel Carson* — The landmark book that launched the modern environmental movement; essential reading for the **Pollution** and **Pesticide/Biological Control** units.
- ***There Is No Planet B: A Handbook for the Year 0000*** by *Mike Berners-Lee* — A clear, data-backed guide to energy systems, food production, and global footprint analysis.
- ***Wilding: The Return of Nature to a British Farm*** by *Isabella Tree* — An inspiring, practical case study on ecological restoration and rewilding in the UK, directly relevant to the **Living Environment** and biodiversity conservation topics.
- ***Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*** by *Kate Raworth* — Explores sustainable development and resource consumption within Earth's planetary boundaries.

3. Key Periodicals & Online Media

Staying up to date with current environmental data and news provides real-world evidence you can quote in your extended essay questions:

- ***The New Scientist* & *BBC Wildlife Magazine*** — Great for accessible articles on biodiversity, technology, and ecology.

- ***The Guardian: Environment Section*** — High-quality coverage of global environmental policy, climate negotiations, and energy transitions.
- ***Carbon Brief*** (carbonbrief.org) — An exceptional resource for clear, data-driven analysis on climate change and energy policy.

