

**AS**

At AS, this specification will develop foundation scientific knowledge and skills associated with the environment and how it works. Candidates will study the biodiversity of life on Planet Earth and Physical resources which are essential for life on Earth.

**A2**

At A2, the specification enables candidates to further develop their skills and understanding of “How Science Works”. Candidates will examine Energy Resources and Environmental Pollution, and Biological Resources and Sustainability.

## Unit 1: The Living Environment

**Written Paper, 1 hour**

40% of total AS marks, 20% of total A Level marks

**60 marks**

- Five short answer questions (45 marks)
- One structured question (15 marks)
- All questions are compulsory

Available January and June

### Subject Content

- Reasons why the conservation of life on Earth is important
- Methods which may be used to achieve effective conservation
- Conservation in the UK, coral reefs, Antarctica and tropical rainforests
- Ecological relationships between organisms and their abiotic and biotic environment

## Unit 2: The Physical Environment

**Written Paper, 1 hour 30 minutes**

60% of total AS marks, 30% of total A Level marks

**90 marks**

- Eight short answer questions (75 marks)
- One structured question including extended prose (15 marks)
- All questions are compulsory

Available January and June

### Subject Content

- Atmospheric gases, water and mineral nutrients
- Human exploitation and management of physical resources to provide higher material living standards
- Unsustainable natural resources

## Unit 3: Energy Resources and Environmental Pollution

**Written Paper, 1 hour 30 minutes**

25% of the total A Level marks

**80 marks**

- Seven compulsory short answer/structured/comprehension questions (60 marks)
- One essay from a choice of three titles (20 marks)
- Includes synoptic assessment

Available June

### Subject Content

- Future problems of energy supply and how these may be resolved
- Properties of pollutants to explain why some materials or forms of energy cause environmental damage
- Minimising releases, treating effluents and managing the damage caused by pollutants

## Unit 4: Biological Resources and Sustainability

**Written Paper, 2 hours**

25% of the total A Level marks

**80 marks**

- Five compulsory short answer/structured/comprehension questions (45 marks)
- One compulsory data analysis question (15 marks)
- One essay from a choice of three titles (20 marks)
- Includes synoptic assessment

Available June

### Subject Content

- Factors controlling human population growth in relation to the demands placed upon the planet’s resources and life-support systems
- Food production and forestry systems
- Study of the sustainability of human lifestyles

## Assessment Objectives

**AO1**

Recognise, recall and show understanding of scientific knowledge. Select, organise and communicate relevant information in a variety of forms.

**AO2**

Analyse and evaluate scientific knowledge and processes. Apply scientific knowledge and processes to unfamiliar situations including those related to issues. Assess the validity, reliability and credibility of scientific information.

**AO3**

Describe ethical, safe and skilful practical techniques and processes, selecting appropriate qualitative and quantitative methods. Know how to make, record and communicate reliable and valid observations and measurements with appropriate precision and accuracy, using primary and secondary sources. Explain how experimental methods may be brought together and used to explore how various environmental systems interrelate. Analyse, interpret, explain and evaluate the methodology, results and impact of their own and others’ experimental and investigative activities in a variety of ways.