

A LEVEL

Environmental Science



WHAT IS THE COURSE CONTENT?

We will be following the AQA specification. This specification is up to date and highly relevant to the majority of global issues in the media today. The course covers 6 key areas over two years which are briefly outlined as:

1. **The Living environment**- this is the study of the interaction of living organisms with each other and their abiotic environment, and how we can protect them from exploitation. We will look at a range of conservation methods from embryo transfer to the use of Zoos.

2. **The physical environment** – within this topic, we aim to understand how the Atmosphere, the soil and the different biogeochemical cycles link together and impact the changing climate.

3. **Energy resources** - The importance of energy resources in both past and future developments in society is analysed. The impact of future energy supply problems is evaluated and we try to understand how improvements in technology can provide increasing amounts of energy from sustainable sources.

4. **Pollution** – here we try to understand how pollutants are formed and the impact they have on the environment. We consider neonicotinoids and their impact on bees and the impact of a range of heavy metals cyanide and plastic.

5. **Biological resources** – this topic allows us to consider the challenge posed by the need to provide food and forest resources for a growing human population without damaging the planet's life support systems.

6. **Sustainability** – we attempt to forge an understanding of the interconnected nature of environmental problems and the solutions to these problems- how might we fix the food, water and energy problems we are experiencing across the globe?.

OUR APPROACH TO TEACHING AND LEARNING

- Students are encouraged to develop their practical skills within a laboratory setting. They will take part in a range of compulsory and optional practical experiments.
- Lessons use a range of techniques and activities to ensure students receive a varied, engaging yet focused learning experience.
- Students will be expected to complete a **minimum** of 4 days in the field. This will involve 4 separate day trips that allow students to carry out field investigations.

- Teaching is done by specialist and experienced teachers with a strong environmental background and detailed examination knowledge to assist in examination preparation.

A LEVEL ASSESSMENT

Students will be assessed by two written examinations in the summer of year 2.

Paper 1 – Assesses the following:

The physical environment, Energy resources, Pollution & Research methods

Written examination: 3 hours.(120marks)

50% of qualification

Paper 2 – Assesses the following:

The living environment, Biological resources, Sustainability & Research methods

Written examination: 3 hours (120 marks)

50% of qualification

ENTRY AND SKILL REQUIREMENTS

What are the entry requirements for A Level Environmental Science?

- Minimum of 55 in the Sciences
- Minimum of a 5 in English
- Minimum of a 5 in Maths

The new environmental Science A level requires an ability to write extended answers, so it is essential that students are able and willing to write essays. 10% of the mark allocation is also based around maths and statistics therefore some basic mathematical understanding is also required.

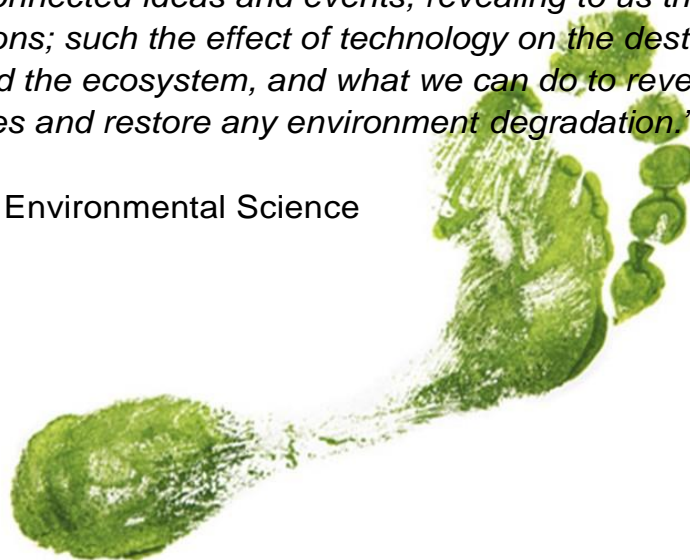


WHY STUDY ENVIRONMENTAL SCIENCE AT A LEVEL?

“Environmental science today covers how living and non-living things interact. It involves a lot of discipline and fields of study such as physics, biology, chemistry, geography and oceanography- if you like nature and the sciences then this subject is for you!

Environmental science is very important because it studies the connections between seemingly disconnected ideas and events, revealing to us the consequence of our actions; such the effect of technology on the destruction of the natural resources and the ecosystem, and what we can do to reverse some of these destructive forces and restore any environment degradation.”

L Jacobsen- Teacher of Environmental Science



WHAT CAN I DO WITH MY A LEVEL IN ENVIRONMENTAL SCIENCE?

As a science A Level, Environmental Science is useful for anyone considering a degree course in the Environmental industries as well as Geography and the Geosciences (including Oceanography). Students also progress onto Archaeological, Biological, Chemical, and Physical Science disciplines. Traditional careers for environmental students are with conservation and climate change organisations but hazard management for landslides, volcanoes and earthquakes has become an important field as well as engineering and land management. Higher Apprenticeships have also started to be advertised in this area so university does not have to be the only route into the field. There are now over 150 environmental science degree courses, many of them taught at Russell Group Universities, so environmental science is becoming a valuable and well considered option for higher level study.

Careers in the Environment Agency or as environmental consultants are common pathways, additionally students may look towards careers in less scientific fields such as environmental Law.

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