

## A Level Environmental Science

Full Time / Level 3 / Callywith College

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By studying Environmental Science you will learn about how physical and biological systems on Earth function and how these can become disrupted. We will investigate and critically evaluate advances in technology to produce energy, food and resources more efficiently. Planet Earth is the only planet we can all live on, so we must look after it and we will investigate the ways humans can use resources more sustainably.



Why choose this course? ▼

The biosphere is also an essential component in creating and maintaining life processes on Earth, unfortunately many species and biomes are under threat and you will be able to evaluate how effective management strategies are in trying to save many species from extinction. In your second year we will examine further how humans affect the planet through our demand for energy sources, release of pollutants and need for biological resources. The course embeds scientific enquiry into your learning and you will have the opportunity to take part in lab investigations and local fieldwork. Planet Earth is the only planet we can all live on, so we must look after it and we will investigate the ways humans can use resources more sustainably.

## What will I learn? ▾

**The Living Environment** - Conditions for Life on Earth, Conservation of Biodiversity, Life processes in the Biosphere and Conservation Planning.

**The Physical Environment** - A study of the Atmosphere, the Hydrosphere, Mineral resources, Biogeochemical cycles and Soils.

**Research Methods: Investigative methods in Environmental Science** - considering different methodologies, standardisation techniques in different environments allowing us to collect and process statistically significant data.

**Energy Resources and Pollution** - Is a study of the importance of energy resources in both past and future developments in society. The impact of future energy supply problems, improvements in technology, sustainability and evaluation of existing technology will all be considered. Students should understand how the properties of materials and energy forms interact to result in environmental change. They should apply this knowledge to suggest solutions to minimise current pollution problems and prevent future problems. A number of different pollution issues will be covered including atmospheric pollution, acid rain, oil, thermal, pesticide and nutrient pollution of water, noise and radiation pollution.

**Biological Resources** - You will study different types of Agriculture and Aquatic food production systems as well as consider the use and importance of forest resources. Throughout these topics you will investigate how humans have increased productivity, but is this sustainable?

**Sustainability** - Building on topics covered in the second year. You will consider the role of dynamic equilibria in natural and human systems and how this understanding may be used to develop sustainable human societies. Energy, material cycles and the circular economy will also be covered.

In the first year, you will study The Living Environment, The Physical Environment and Research Methods. In the second year you will study Energy Resources and Pollution, Biological Resources, Sustainability and remaining aspects of Research Methods. These will then be examined across 2 papers. Paper one contains The Physical Environment, Energy resources, Pollution and Research Methods. Paper 2 contains The Living Environment, Biological Resources, Sustainability and Research Methods.

## Assessment Arrangements ▾

At the end of year 2, you will sit two exams covering the content delivered over both years. Your achievement in this subject is dependent upon excellent attendance, punctuality and effort. You will learn in a friendly atmosphere, using a variety of assessment methods: such as regular tests under timed conditions in class, regular homework questions and through completion of class activities. You will then be given feedback on your progress. You will undertake a mid-point assessment at the end of your first year, with opportunities for mock examinations in class in advance of your final exams.

## Where will it take me? ▾

The course could lead you to a career with an environment agency, The National Trust, The Forestry Commission, local wildlife trusts, environmental consultancies, National Parks, recycling organisations, waste management and water quality organisations.

## Information & Support ▾

You will be expected to undertake 4-6 hours of independent study per week. Throughout the year, you will be able to access additional support through our VLE where you will find a variety of lesson resources and revision questions, as well as a variety of additional opportunities to stretch and challenge the most able students. We encourage you to proactively engage with the support available in order to reach your full potential.

#### What will I need? ▾

Five GCSEs at grade 4 or above including grade 5 or above in chemistry or combined science 55.  
Mathematics at grade 5 or above and English Language or Literature at grade 5 or above.

#### Additional Information ▾

We encourage all students to read widely and conduct their own research into the topics they are studying. You will be expected to undertake at least 4-6 hours of independent study time per week. There is a wide range of support material available in the Learning Resource Centres and on the course SharePoint site. Throughout the year, you will be able to access additional support and opportunities to stretch and challenge you.

#### **Awarding Body:**

AQA

#### **Further information**

To obtain more information about this course, please call: 01208 224000 or visit [www.callywith.ac.uk](http://www.callywith.ac.uk)