



**ADVANCED SUBSIDIARY GCE  
GENERAL STUDIES**

The Scientific Domain (Coursework)

**2963/AS**

**To be opened on receipt**

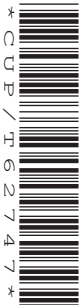
**JUNE 2009**

**OCR Supplied Materials:**

- Resource Booklet (2963/RB)

**Other Materials Required:**

None



**INSTRUCTIONS TO CANDIDATES**

- Assignment Theme: 'Understanding scientific methods and their applications'.

**INFORMATION FOR CANDIDATES**

- The total number of marks for this assignment is **90**.
- This document consists of **4** pages. Any blank pages are indicated.

## Guidance for candidates

The Assignment for Unit 2963 comprises 30% of the AS award and 15% of the A Level. Your assignment should reflect the scientific content of the unit:

- Characteristics of the sciences (physical, life and earth)
- Understanding of scientific methods, principles, criteria and their applications
- Mathematical reasoning and its application.

### Assignment Brief – ‘Understanding scientific methods and their applications’

Investigate an issue associated with one of the following areas and submit a report of your findings.

- Evidence for global warming
- Comparing energy from renewable sources
- GM crops – success and failures
- Success of fitness/training regimes
- Monitoring of environmental pollution

Candidates may wish to base their report on any area of the physical, life and earth sciences.

Wherever possible the investigation should incorporate both primary and secondary data and should have its focus on an example or topic which you know well. **The overall theme is to give candidates the opportunity to demonstrate their understanding of scientific methods and their role;** to include:

- Hypothesis testing
- Modelling, forecasting and reliability
- Experimental design

The aim of the report should be for candidates to take the opportunity to conduct their own experiments – for example an analysis of the efficacy of techniques of reducing the emission of greenhouse gases, or recycling, with a focus on the methodology.

If candidates wish to go outside the broad areas suggested above, that is fine, provided the focus of their report is on the scientific methodology which underlies scientific or technological innovation. Candidates who wish to focus on a specific area of methodology, for example experimental design, may do so, but they must show awareness of other areas of methodology and their comparative importance.

Your report should **not exceed 2000** words. There is no need to include a large amount of material which has been downloaded from the Internet.

You should discuss with your teacher whether your proposed investigation would enable you to meet the assessment criteria for the coursework assignment.

**If you adopt a problem solving approach by generating a question or a hypothesis for investigation, you are more likely to be successful than if you simply produce a descriptive account.** You may well use ideas gained from your other studies, but remember this is an assignment for General Studies and you will need to discuss the wider issues and implications of your investigation.

## Specification of responses

Project reports should normally include:

- a title
- a review of the evidence and development of a focus, question issue or hypothesis
- a plan of the way in which the investigation proceeded
- clearly defined technological concepts or models
- coherent use of appropriate technological terms
- clear tabulation of data collected
- analysis of any issues raised
- appropriate illustrative material such as graphs, charts, statistics and photographs
- clarification of the dilemmas raised and tests of significance applied
- critical analysis of the scientific methods used and the recognition of facts and opinions
- relevant conclusions and the reliability of results
- a list of the source materials used (which may include the Internet and CD ROMs).

The report has a maximum word limit of 2000 words which includes a short synopsis (about 50 words) and appendices.

## Submission of your assignment

Make sure your name and centre number are on each page of your assignment.

Put your work in order and number all pages. Prepare a contents page and a **short synopsis** (about 50 words).

If you wish to use your assignment as key skills evidence, you should keep an electronic or hard copy.

Hand your completed assignment to your teacher.

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