



Rewarding Learning

ADVANCED
General Certificate of Education
2021–2022

Environmental Technology

Internal Assessment Task
Unit A2 2 *assessing*
Environmental Building Performance
and Measurement

[A2EB1]

VALID FROM SEPTEMBER 2021

INSTRUCTIONS TO CANDIDATES

- Your report should be a maximum of 3250 words.
 - The introduction should not exceed 500 words.
 - The primary investigation should not exceed 1000 words.
 - The recommendations, including commentary on the overall building performance and the evaluation of the sustainability measurement processes used throughout the task, and the evaluation should be a maximum of 1750 words.
- Your work may be informed by working with others, but each candidate must provide an individual response.

Candidates' work to be submitted May 2022

Coursework must comply with the Regulations as detailed in the Subject Specification.

NB: Some Coursework Tasks instructions may constitute more than 1 page.

Please check you have all the information you need to complete the task if printing from a computer.

Assessment Task

Scenario

In this task you are required to act in a consultancy capacity by carrying out an investigation into a building of your choice using the Code for Sustainable Homes (CSH).

The Code for Sustainable Homes, as developed by the Building Research Establishment, has been implemented to drive a change in UK house building practice. The code sets out a clear environmental direction to achieve better living standards for residents of these modern homes and to address the overall sustainability agenda. The Code covers nine categories of sustainable design:

- Energy and CO₂ emissions,
- Water,
- Materials,
- Surface Water Run-off,
- Waste,
- Pollution,
- Health and Well-being,
- Management,
- Ecology.

Using the Code for Sustainable Homes, as developed by the Building Research Establishment, you are required to select a nearby building, such as a home, school or leisure centre of your choice, on which to carry out a CSH type assessment. Emphasis must be placed on:

- **Energy and CO₂ emissions**

You will produce a technical report that will:

- Set the scene for the need for and types of sustainability measurement systems for buildings, giving policy context and the role of 'Zero Carbon Homes';
- Provide an overview of the Code for Sustainable Homes and identify the categories contained within it;
- Identify the equipment and processes necessary to assess the Energy and CO₂ emissions category;
- Carry out the physical measurements and present the results gained in an appropriate range of formats;
- Identify and source data for a building similar to that chosen for CSH categories from published sources, excluding Energy and CO₂ emissions;
- Convert the source data and the measured data into the nine CSH categories for the chosen building;
- Derive an overall CSH rating (Bands 1–6 star) from the data gathered;
- Investigate links across CSH categories for the chosen building and develop ideas and recommendations regarding further development and building enhancement;
- Provide a commentary on the overall building performance in light of the ideas and recommendations being made;
- Carry out an evaluation of the sustainability measurement processes used throughout the assessment task;
- Make reference to health and safety considerations; and
- Identify all reference material.

Additional guidance of the format and structure of the technical report can be found in Section 3.4 of the Environmental Technology specification.

Word Limit

- The technical report must not exceed **3250 words**.
- The introduction/setting the scene should not exceed **500 words**.
- The primary investigation should not exceed **1000 words**.
- The recommendations, including the commentary on the overall building performance and the evaluation of the sustainability measurement processes used throughout the task should be a maximum of **1750 words**.