



*Rewarding Learning*

**ADVANCED**  
**General Certificate of Education**  
**2019–2020**

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## **Environmental Technology**

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

**[A2EB1]**

**VALID FROM SEPTEMBER 2019**

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### **INSTRUCTIONS TO CANDIDATES**

- Your report should be a maximum of 4000 words.
  - The introduction should not exceed 500 words.
  - The primary investigation should not exceed 1500 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 2000 words.
- Your work may be informed by working with others, but each candidate must provide an individual response.

**Candidates' work to be submitted May 2020**

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 CO<sub>2</sub> 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:

- **Surface Water Run-Off**
- **Energy and CO<sub>2</sub> 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 Surface Water Run-Off and Energy and CO<sub>2</sub> emissions categories;
- 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 Surface Water Run-Off and Energy and CO<sub>2</sub> 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 **4000 words**.
- The introduction/setting the scene should not exceed **500 words**.
- The primary investigation should not exceed **1500 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 **2000 words**.