



A Project Approach to Delivery Building for learning and designing for sustainability

The learner version of the Project Brief is available from <http://www.ocr.org.uk/qualifications/vocational-education-and-skills/cambridge-technicals-applied-science-level-3-certificate-extended-certificate-foundation-diploma-diploma-extended-diploma-05847-05849-05879-05874-2016-suite/>

SCENARIO

A local FE College has taken the decision to create a new STEM campus to serve the aspirations of young people unable to access their main college.

For example, students in rural communities have been identified as being at a disadvantage¹.

The college has also committed the new campus to be “sustainable”, and to have a positive impact on the natural and human environments. Ideas being considered include energy production, conservation, storage, and use, water recovery and harvesting, control of waste, environmental enhancement and remediation and transport and infrastructure.

It is proposed that the new campus will be located on land formerly occupied by a range of small industrial units. The record of activities for this site is vague and incomplete. The site is also near an environmentally sensitive site which contains a number of statutory designations. The site is also poorly serviced by normal gas, electricity and water supplies.

Your challenge is to design, plan, execute and report on an environmental analysis of the proposed site of the new campus and the potential impact to the human and natural environments. All ideas adopted must provide maximum benefits to local young people and other stakeholders.

Your tasks are to:

- Report on the environmental factors most relevant to the proposed project
- Examine the environmental impacts of potential project scenarios, such as:
 - Reuse of an old factory site and its disturbance by construction work.
 - Disturbance to a site of specialist scientific interest (SSSI) during construction and use.
 - Impacts on:
 - The landscape.
 - Pollution.
 - Consideration of the upkeep and lifetime of the new campus buildings.
- Design scientific protocols for assessing and monitoring environmental quality in the project scenarios, eg
 - Monitoring ground and surface water contamination.
 - Assessment of soil contamination.
 - Monitoring of:
 - Air quality.
 - Biodiversity.

- Design scientific protocols to assess and monitor other environmental impacts, such as:
 - Monitoring other forms of pollution such as noise and light.
 - Potential impacts on human demographics and transport.
- Identify opportunities for sustainability, especially in areas of:
 - Energy supply.
 - Water use and recycling.
 - Carbon footprint.
- Prepare an outline environmental impact assessment of the proposed projects.
- Suggest means of alleviating any issues which arise.

This work can be undertaken as an individual or within a team. If working within a team learners are expected to contribute to each of the areas (and be able to evidence this contribution) in order to gain the experience and knowledge required to successfully complete the Cambridge Technicals in Applied Science Food Science Pathway.

Reference

¹“Barriers to education, employment and training for young people in rural areas”, Commission for Rural Communities (2012) - <http://dera.ioe.ac.uk/15199/1/Barriers-to-education-employment-and-training-for-young-people-in-rural-areas.pdf> (accessed July 2016)

