

# Edexcel Principal Learning

## Engineering

Level 2

**Unit 8: Exploring Engineering Innovation,  
Enterprise and Technological Advancements**

Pre Release Material  
May 2010

Paper Reference

**EG208/01**

**You do not need any other materials.**

You are not allowed to take your pre release work into the examination.

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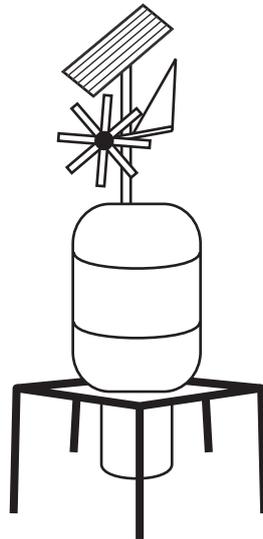
## Case Study – Cattle-Fed

Michael and David have thought up a technical idea and want to produce and sell their new product. The idea is to manufacture an automatic cattle feeder called Cattle-Fed. The novel idea puts together existing technologies such as wind and solar power combined with an electronic timer. Michael and David want to protect their idea, and supporting technical documentation, because it is substantial and new.

Michael and David will research the market place to identify demand for the product and how it will impact on everyday life. They will calculate set-up, marketing and production costs for the product and also estimate their financial requirements, to make Cattle-Fed a success.

Michael and David want their product to meet three main criteria:

1. To be made of suitable materials.
2. The production process (or build) to have as little negative impact on the environment as possible.
3. To ensure that the product is recyclable, or biodegradable when its life is finished.



### Instructions

You are required to investigate the viability of the Cattle-Fed product. Your study should identify the steps Michael and David will need to undertake if the product is to be a success. Your study should include investigating the following areas:

- intellectual property
- research and development, including testing
- financial support
- sustainability of a range of materials and their properties (feed hopper)
- potential impact on the home, workplace and built environment
- social and environmental impact