

Edexcel Principal Learning

Engineering

Level 2

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

Pre Release Material

January 2012

Paper Reference

EG208/01

You do not need any other materials.

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

Turn over ▶

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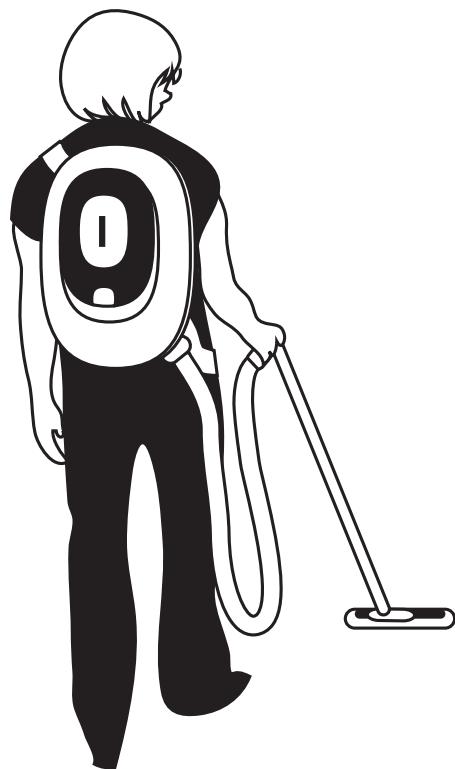
3/2



PEARSON

Rachel has designed a convenient household product called a VacBack. The VacBack is powered by an on board, rechargeable battery. This product is still at the concept stage, therefore the design and look of the product is her own work. A friend has offered to help Rachel develop the product and has suggested that she should protect her idea.

Rachel wants her VacBack to be manufactured using high volume production processes.



Instructions

You are to investigate the viability of a VacBack product. Your study should identify the steps Rachel will need to undertake if the product is to be a success. Your study should investigate the following areas:

- intellectual property
- financial support
- research and development, including testing
- a range of suitable materials and their properties, including those used in the power source
- high volume production processes (hose, main suction tube, nozzle and buckle)
- potential impact on the home, workplace and built environment
- social and environmental impact