

## CHAPTER 3 The engineering environment

### Test your knowledge 3.1

A typical answer might include:

1. Initial product design and development (producing a detailed specification, working drawings, identifying materials and manufacturing processes)
2. Prototype production and manufacture (using the materials and processes to create a prototype of the new product)
3. Final assembly and testing (checking the performance of the product against the design specification)

### Test your knowledge 3.2

Line flow: continuous production based on a sequence of successive manufacturing operations and processes. Used for large scale high-volume manufacture and production

Project-based: individual manufacturing processes and operations applied on a 'one-off' basis to a product that is unique. Project-based products are often made for specific customers and are often built to satisfy a particular requirement

### Test your knowledge 3.4

A typical answer might include:

1. State of the economy (tax, interest and exchange rates)
2. Current and predicted future levels of consumer demand
3. Innovations and technological change
4. Competition from other manufacturers and suppliers.

### Test your knowledge 3.7

Transferrable skills are skills that an employee takes from a job in one field to a job in another field. Examples of transferrable skills might include the ability to:

- create and use spreadsheets (IT skills)
- drive safely and hold a clean driving licence (driving skills)
- deliver a presentation using audio-visual aids (communication skills)
- deal effectively with customer enquiries and complaints (inter-personal skills).

All of these transferrable skills could be valuable in a wide variety of different industries and employment contexts.

### Test your knowledge 3.8

See pages 51 and 52.