

# **Performance Descriptions for Foundation, Advanced and Higher Principal Learning Qualifications in Manufacturing and Product Design**



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## **Phase 2 Lines of Learning**

Performance descriptions are statements that describe typical performance of candidates at the top and bottom of an acceptable range. They relate to whole principal learning qualifications rather than specific units.

Their purpose is to:

- help awarding organisations in designing mark band statements that reflect agreed standards, thus helping to ensure parity across awarding organisations;
- help awarding organisations in designing principal learning qualifications that are pitched at the right level;
- contribute towards contextualising the Qualifications and Credit Framework (QCF) level descriptions for specific lines of learning.

The performance descriptions describe two levels of performance:

### **Pass**

At the bottom of the acceptable range, this is the minimal level of performance for a learner to pass a principal learning qualification.

### **Top**

At the top of the acceptable range, this is what can reasonably be expected of a high-attaining learner who has followed an appropriate course.

Performance descriptions are not competency definitions and need to have sufficient latitude to allow for 'best fit' marking grids to be written.

Performance descriptions have been written by awarding organisations and Diploma Development Partnerships against the relevant lines of learning criteria.

Performance descriptions are not intended to summarise the content of lines of learning topics. Awarding organisations are required to ensure that full topic content is accurately reflected in specifications.

Specifications are issued as they stand so that awarding organisations can begin using them as soon as possible to develop their principal learning qualifications.

*Please note: the numerical references used for performance descriptions do not bear any relationship to those used for lines of learning criteria or those which may be used in subsequent qualifications.*

## **Level 1**

<b>Pass</b>	<b>Top</b>
1.1 Demonstrates basic knowledge of manufacturing as a business and the main sectors involved in the UK.	1.1 Demonstrates detailed knowledge of manufacturing as a business and the main and sub-sectors involved in the UK.
1.2 Demonstrates basic knowledge of the main job roles and their responsibilities within manufacturing.	1.2 Demonstrates knowledge of the main job roles and a detailed understanding of their responsibilities within manufacturing.
1.3 Demonstrates some awareness of the needs of customers within manufacturing business.	1.3 Demonstrates understanding of the needs of customers within manufacturing business.
1.4 Uses simple calculations in manufacturing situations.	1.4 Uses simple calculations correctly in a range of manufacturing situations.
1.5 Under supervision, performs simple tests correctly on materials and records outcomes.	1.5 Independently performs tests correctly on materials, records outcomes and is able to reach simple conclusions.
1.6 Demonstrates some awareness of the influences on the product design process.	1.6 Demonstrates a clear understanding of the influences on the product design process.
1.7 Makes a simple product with guidance.	1.7 Independently makes a simple product.
1.8 Demonstrates basic knowledge of relevant legislation that affects manufacturing working practices.	1.8 Demonstrates basic knowledge and understanding of relevant legislation and how it affects manufacturing working practices.
1.9 With guidance, follows verbal and written instructions and operating procedures.	1.9 Independently follows verbal and written instructions and operating procedures.

## **Level 2**

<b>Pass</b>	<b>Top</b>
2.1 Demonstrates a basic understanding of the structure of a manufacturing business and how the functions interrelate.	2.1 Demonstrates clear understanding of the structure of a manufacturing business and how the functions interrelate.
2.2 Gathers, records, sorts and uses relevant data accurately from a limited range of available sources.	2.2 Gathers, records, sorts and uses relevant data accurately from a wide range of available sources.
2.3 Recognises a range of different commercial factors affecting manufacturing business.	2.3 Recognises and understands a wide range of different commercial factors affecting manufacturing business.
2.4 Displays a positive attitude to working and communicating with others.	2.4 Displays a positive attitude to working with others, communicating both clearly and effectively.
2.5 Produces a basic product design specification with limited reasoning.	2.5 Produces a detailed product design specification with clear reasoning.
2.6 Demonstrates a basic understanding of the properties of materials through testing.	2.6 Shows a thorough understanding of the properties of materials through complex testing, and makes recommendations for their use.
2.7 Applies basic knowledge and understanding of scientific principles that underpin product manufacture.	2.7 Applies thorough knowledge and understanding of scientific principles that underpin product manufacture.
2.8 Understands a limited range of different manufacturing processes.	2.8 Understands a wide range of different manufacturing processes.
2.9 Demonstrates a basic understanding of working within a legal framework.	2.9 Demonstrates a clear understanding of working within a legal framework.

## **Level 3**

<b>Pass</b>	<b>Top</b>
3.1 Demonstrates an awareness of the strategic management of manufacturing business and systems, and how resources for continuous improvement are managed.	3.1 Demonstrates and applies a thorough understanding of the strategic management of manufacturing business and systems, and how resources for continuous improvement are managed.
3.2 Undertakes research, collects and analyses data and makes basic recommendations for solutions to problems.	3.2 Undertakes research, collects and analyses data and uses detailed analysis to justify recommendations for solutions to problems.
3.3 Demonstrates some application of understanding of some factors affecting competitiveness within manufacturing business.	3.3 Demonstrates and applies a thorough understanding of a wide range of factors affecting competitiveness within manufacturing business.
3.4 Demonstrates an awareness of the management of individuals and groups working within manufacturing businesses.	3.4 Demonstrates a thorough understanding of the management of individuals and different groups working within manufacturing businesses.
3.5 Develops a manufactured product, which meets limited business needs.	3.5 Develops an innovative and creative manufactured product, which meets comprehensive business needs.
3.6 Uses routine scientific methods to justify the selection of materials and technologies to improve the product and productivity.	3.6 Uses sophisticated scientific methods to justify the selection of materials and technologies to improve the product and productivity.
3.7 Demonstrates awareness of the management of processes, quality and technologies used in manufacturing.	3.7 Demonstrates a thorough understanding of the management of different processes, quality and technologies used in manufacturing.
3.8 Demonstrates a basic understanding of the supply chain management applied to manufacturing business.	3.8 Demonstrates a detailed understanding of the supply chain management applied to manufacturing business.

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