

Packaging Professional Integrated Degree Apprenticeship Standard, Level 6: End-Point Assessment Plan

June 2018

Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the packaging professional integrated degree apprenticeship standard. It is for end-point assessment organisations (EPAOs) who need to know how EPA for this apprenticeship standard must operate. It will also be of interest to packaging professional apprentices, their employers and training providers.

In an integrated degree apprenticeship, the degree incorporates on-programme academic and workplace learning and assessment with an independent EPA to test the occupational standard's knowledge, skills and behaviours (KSBs). The degree is worth 360 credits, with the EPA accounting for 60 credits.

Full time apprentices will typically spend 36 months on-programme working towards the occupational standard, with a minimum of 20% off-the-job training.

The EPA should only start once the employer is satisfied that the apprentice is consistently working at, or above, the level set out in the occupational standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPAO.

As a gateway requirement, apprentices must have completed 300 on-programme credits and have passed all on-programme packaging professional degree modules, agreed an EPA work-based project outline agreed with their employer and University - in their capacity as EPAO and have achieved English and mathematics at level 2 as minimum.¹

The EPA must be completed within a maximum 9-month period, after the apprentice has met the EPA gateway requirements.

Awarding Universities will be responsible for the on-programme and EPA requirements. They must be on the Education & Skills Funding Agency (ESFA) Register of Apprenticeship Training Providers (RoATP). They must also be approved to offer the EPA for this apprenticeship standard and be on the ESFA Register of End-point Assessment Organisations (RoEPAO).

The EPA consists of 2 distinct assessment methods:

- **Work-based project**, consisting of a report and presentation with questioning
- **Case study test**

¹ For those with an education, health and care plan or a legacy statement the apprenticeships English and maths minimum requirement is Entry Level 3. British Sign Language qualification is an alternative to English qualifications for those whom this is their primary language.

Performance in the EPA will count towards the overall degree classification. Apprentices cannot successfully complete the degree apprenticeship without successfully passing the EPA.

Performance in the EPA will determine the apprenticeship grade of fail, pass, merit or distinction.

On-programme (typically 36 months)	End-point assessment gateway	End-point assessment (maximum 9 months)	Professional recognition (optional)
<p>Training to develop the packaging professional occupation standard's knowledge, skills and behaviours</p> <p>300 on-programme packaging professional degree credits</p> <p>Working towards English/maths Level 2 (if required)</p>	<p>Employer satisfied apprentice is consistently working at or above the level of the occupational standard</p> <p>Completed 300 on-programme credits and have passed all on-programme packaging professional degree modules</p> <p>Agreement of work-based project outline with their employer and University</p> <p>Achieved English/maths Level 2</p>	<p>2 assessment methods:</p> <ul style="list-style-type: none"> • Work-based project, consisting of a report and presentation with questioning, graded fail, pass, merit or distinction • Case study test, graded fail or pass <p>Worth 60 packaging professional degree credits</p> <p>EPA graded overall at fail, pass, merit or distinction</p>	<p>Recognition as an Accredited Packaging Professional by the Institute of Materials, Minerals and Mining</p>
Packaging professional apprenticeship standard			

Diagram 1. Typical packaging professional apprenticeship standard summary

End-point assessment gateway

The EPA should only start once the employer is satisfied that the apprentice is consistently working at or above the level set out in the occupational standard, the pre-requisite gateway requirements for EPA have been met and that they can be evidenced to an EPAO. Employers may wish to take advice from their apprentice's University.

Gateway requirements:

- Completed 300 on-programme credits and have passed all on-programme packaging professional degree modules
- Agreed an EPA work-based project outline with their employer and University – in their capacity as EPAO – along with submission requirements. The outline must detail the project title, scope, key activities/milestones and expected outputs/measures of success. See work-based project, consisting of a report and presentation with questioning for further details of project aim and scope
- Achieved English and mathematics at level 2, as a minimum

End-point assessment methods, timescales and location

The EPA consists of 2 distinct assessment methods:

- **Work-based project**, consisting of a report and presentation with questioning
- **Case study test**

Each assessment method will be assessed against the occupational standard's KSBs as detailed in appendix A.

Each assessment method will be marked by an independent assessor who will determine the grade for each assessment method using the grading criteria in annex B.

The EPA must be completed within a maximum period of 9-months, after the apprentice has met the EPA gateway requirements. The 9-month maximum period will start once the apprentice's project outline has been agreed with their employer and University, in addition to the other gateway requirements - as detailed above.

The assessment methods can be completed in any order during the maximum EPA period. However, it is anticipated that the work-based project presentation with questioning component and case study test will take place on the same day, to aide efficiency.

The presentation with questioning component and case study test must take place in a controlled environment; a room free from distractions and influence, with sufficient space for all present. It is anticipated a room will be sourced at the apprentice's University's or employer's premises to minimise cost.

Requirements for each assessment method are detailed below.

Work-based project

The work-based project consists of a report and presentation with questioning. Evidence from the different components will be assessed holistically to determine the grade for this assessment method.

EPAOs must ensure the report is submitted by month 7 and that the presentation with questioning is scheduled during the apprentice's maximum EPA period, after the report has been reviewed.

Report

The aim of the work-based project must be to design new packaging or improve existing product packaging and include product trials.

Apprentices must produce a report of 7,000 words (+/- 10%), based on a work-based project. The report must include a 375-400 word summary outlining recommendations (excluded from the word count above). Apprentices must also submit a project log, which records what they have done and includes product evidence e.g. data analysis.

The work-based project must be detailed in a project outline and agreed by the apprentice's employer and University in their role as EPAO as a gateway requirement – see above. The project should relate to real work in the employer's business and therefore have a business benefit. The project may be one big task relating to one product or a series of smaller tasks relating to a number of products, and relate to a whole end-to-end process or part of a process, to meet the needs of different types of employers.

All work relating to the project and report write-up, must be completed during the EPA period; excluding preliminary research to inform the project outline.

Example project titles include:

- Reducing the environmental and financial costs associated with a product
- Developing a new packaging format for a product to meet consumer expectations and customer requirements
- Reducing complaints resulting from poor packaging and embedding solutions

Apprentices must submit their work-based project report by the end of month 7 of the EPA period at the latest. The apprentice's employer must provide a statement to confirm authenticity of the project and the report. It must be reviewed by the independent assessor before the presentation with questioning. The presentation with questioning should be scheduled to take place as soon as possible after a work-based project report has been reviewed and must be within the apprentice's maximum EPA period.

Universities - in their role as EPAO must hold a bank of example projects; however, apprentices must not be limited to these. EPAOs must develop 'project banks' of sufficient size to prevent

predictability and review them regularly (and at least once a year) to ensure they, and the specifications they contain, are fit for purpose.

Presentation with questioning

Apprentices must prepare and deliver a presentation, based on their work-based project to their independent assessor on a one-to-one basis during their EPA maximum period, after their report has been reviewed by their independent assessor. The presentation will be followed by questioning by the independent assessor.

The presentation must last 20 minutes (+/- 10%).

The presentation must cover: the project scope, outcomes/achievements, any difficulties faced/lessons learnt and recommendations; with the target audience stated.

There are no restrictions on how apprentices deliver the presentation or support resources/materials used. However, any equipment requirements for example powerpoint, whiteboard, flip chart facilities must be agreed with the University - in their role of EPAO, at least two weeks in advance of the date of the presentation.

Following the presentation, the independent assessor must ask 5-6 questions based on the project report and presentation; the independent assessor may ask follow up open questions to probe further or seek clarification. The duration of the questions and answer session must be 40 minutes +/-10%. Independent assessors must determine the questions taking account of the review and presentation.

During the questioning apprentices may refer to their report or presentation support materials to assist in answering the questions.

Questions and responses must be recorded by the independent assessor.

EPAOS must develop sample presentation questions – see requirements below.

Example questions may include:

- Explain the business benefits achieved and how you measured them
- Explain the biggest challenges and give an analysis of how you overcame them
- Describe the alternative options that were considered and give a detailed description of why they were discounted

Universities - in their role as EPAO, must develop of bank of sample questions, although independent assessors will need to tailor the questions according to the evidence presented via the report and presentation.

Independent assessors must assess the report, presentation and questioning holistically to determine the grade for this assessment method, using the grading criteria in annex B.

Case study test

Apprentices must complete a case study test during their EPA period in a controlled environment – see above.

Apprentices will be presented with 3 different case studies from which they must choose one to complete. Each case study will identify a specific scenario that a packaging professional may be faced with in their role, they will present a variety of scenarios that cover a range of realistic challenges across a number of manufacturing sectors. The case studies should relate to a product that isn't from the apprentice's specific workplace or product sector, to test wider knowledge application. Case studies could for example relate to an incoming goods issue, production problem, customer complaint, product performance issue or process improvement. Each case study will have four questions/prompts that the apprentice must address in their answer i.e. analysis of the issue, improvement process they would follow, processes they would put in place.

Apprentices must have 2-hours to complete the case study, this includes reading time.

The test is closed book i.e. the apprentice can't have access to reference materials or notes in any form.

EPAOs must ensure the case study test is scheduled during the apprentice's maximum EPA period.

An administrator/invigatorator must be present during the case study test. The maximum administrator/invigatorator to apprentice ratio must be 1 to 15. The case study can't be undertaken/invigatorated remotely due to the requirement for examination conditions.

EPAOs must develop the case study test bank – see requirements below. It may be a paper-based or computer-based test.

End-point assessment/apprenticeship grading

Performance in the EPA will count towards the overall degree classification. Apprentices can't successfully complete the degree apprenticeship without successfully passing the EPA.

Performance in the EPA will determine the apprenticeship grade of pass, merit, distinction or fail.

Independent assessors will be responsible for grading each assessment method, in accordance with the requirements detailed in this plan. The project is graded fail, pass, merit or distinction. The case study is graded fail or pass. The project has a greater impact on the overall grade, reflecting its relative size. The grading criteria for each EPA method is detailed in Appendix B.

Independent assessor decisions must be subject to moderation (External Examiner review). Grades must not be confirmed until after moderation.

The University – in its role as EPAO must combine the grades for both assessment methods to determine the apprenticeship grade.

Apprentices must pass both assessment methods to gain an EPA/apprenticeship pass, merit or distinction. The table below shows how the grades must be combined to determine the EPA/apprenticeship grade.

A pass will demonstrate that the apprentice has met all the requirements of the occupational standard. Apprentices achieving a merit or distinction will be demonstrating performance above the minimum requirements of the occupational standard.

Work-based project grade	Case study test grade	EPA/apprenticeship grade
Fail	Fail	Fail
Pass	Fail	Fail
Fail	Pass	Fail
Pass	Pass	Pass
Merit	Fail	Fail
Merit	Pass	Merit
Distinction	Fail	Fail
Distinction	Pass	Distinction

Re-sits/re-takes

Apprentices will be offered the opportunity to take a re-sit/re-take in line with a University's academic regulations. A re-sit does not require the apprentice to undertake any additional training/learning, whereas a re-take does.

The apprentice and their employer must agree that a re-sit/re-take is an appropriate course of action, they may wish to take advice from the apprentice's University. Both assessment methods must be passed in the same 9-month period, otherwise the EPA must be re-sat/re-taken in full.

Re-sits/re-takes will not be offered to apprentices wishing to move from 'pass to merit or distinction' or 'merit to distinction.'

Apprentices who re-sit/re-take the work-based project will only be able to achieve a pass for this assessment method, unless the University confirms that there were exceptional

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circumstances beyond the control of the apprentice that resulted in the fail. A distinction grade does not apply to the case study test and thus any re-sit/re-take will be awarded fail or pass.

The University – in its role as EPAO must ensure that a different work-based project and case study are used in the case of a re-sit/re-take.

Professional body recognition

This apprenticeship is designed to prepare successful apprentices to meet the requirements for registration as an Accredited Packaging Professional by the Institute of Materials, Minerals and Mining and with continued professional development (CPD) they could become a full member.

End-point assessment organisations

Awarding Universities will be responsible for the on-programme and EPA requirements. They must be on the Education & Skills Funding Agency (ESFA) Register of Apprenticeship Training Providers (RoATP). They must also be approved to offer the EPA for this apprenticeship standard and be on the ESFA Register of End-point Assessment Organisations (RoEPAO).

Universities – in their role as EPAO must appoint independent assessors to grade the work-based project and case study test, and administrators/invigilators to administer/invigilate the case study test.

Requirements for independent assessors:

- be independent of the on-programme delivery, the apprentice and their employer i.e. there must be no conflict of interest; and, wherever possible, the assessor must come from a third party organisation, for example, a professional body or another employer. If this is not possible, they can be sourced from within the same university but must be occupationally competent, meet any other conditions for assessors and not have been involved in the on-programme delivery
- can be supported by an academic assessor – but the independent assessor must make the assessment decision; the academic assessor must not try to influence the independent assessor in any way, their role is to provide technical input on request
- currently working in or have worked in the packaging sector in a senior packaging professional position or as an experienced packaging professional
- hold or working towards an assessor qualification for example TAQA (Training assessment and quality assurance) or received training from the EPAO in effective assessment practice
- attended training from EPAO in terms of operating assessment tools and grading
- attend a minimum of one EPAO standardisation meeting per year

Requirements for administrators/invigilators:

- be independent of the on-programme delivery, the apprentice and their employer i.e. there must be no conflict of interest
- trained in administration/invigilation tasks by their EPAO

Internal quality assurance

Internal quality assurance refers to the requirements that EPAOs must have in place to ensure consistent, reliable, accurate and valid assessment decisions. EPAOs for this EPA must undertake the following:

- appoint independent assessors that meet the requirements as detailed in this plan – see above
- provide training for independent assessors in terms of effective assessment practice, operating the assessment tools and grading
- have quality assurance systems and procedures that support fair, reliable and consistent assessment across organisation and over time
- operate regular standardisation events that enable assessors to attend a minimum of one event per year
- operate moderation of assessment activity across all grading outcomes, with a minimum of 25% of each independent assessors' assessments moderated

Assessment tools and materials

EPAOs must produce assessment tools and supporting materials for the EPA that follow best assessment practice, as follows:

- Example work-based project outlines
- Sample work-based project question bank
- Case study test question bank
- Documentation for recording assessment evidence and decisions
- Guidance for independent assessors on conducting the EPA
- Guidance for apprentices, their employers and training providers on the EPA

Universities must develop sample work-based project question and case study question banks of sufficient size to prevent predictability and review them regularly (at least one a year) to ensure they are fit for purpose. It is recommended that representative employers contribute to the development of question/case study banks; where they do this they must put measures in place to ensure question security.

External quality assurance

The Institute for Apprenticeships is exploring whether QAA can undertake external quality assurance for this standard, arrangements will be confirmed by August 2018.

Implementation

Affordability

The following factors should ensure the EPA is affordable:

- work-based project is based on real project and thus providing benefit to the employer
- presentation with questioning and case study test don't require any specialised equipment and can be undertaken in employer or University's premises
- assessment methods can be taken in any order to enable cost effective allocation of independent assessors
- independent assessors don't require any specialist qualifications (reflecting current position of specialist in the market)

Volumes

It is anticipated that there will be 50 starts per year on this apprenticeship and 80 per year once established.

Annex A – Knowledge, skills and behaviours to be assessed by each assessment method

Assessment method	Key
Work-based project	P
Case study test	T

Knowledge

		P	T
K1	Functions of packaging: inform the consumer, contain, protect, promote & preserve the product	X	
K2	Requirements of packaging: environmental consideration, economical appropriateness & use-ability	X	
K3	The impact and measures of packaging on the environment & strategies to reduce its impact e.g. reduce, reuse, recycle, recover, energy and water consumption and carbon emissions	X	
K4	Materials science: properties, testing, applications and interaction with the product; hygiene, odour, migration, corrosion & their impact on product shelf life	X	
K5	Requirements to manage the storage and conditions required for packaging and finished goods	X	
K6	The different types of finished pack testing, including functionality and consumer	X	
K7	Machinery technologies: the different types of filling and packaging performance collate, form, fill, seal		X
K8	Conversion technologies: the process of raw material to end packaging	X	
K9	The interactions between machine, process, materials and product e.g. coefficient of friction, static		X
K10	Line design and the concept of production efficiency		X
K11	The principles of budgetary control, cost analysis e.g. costs of goods, total delivered costs	X	
K12	Customer and consumer requirements throughout the package's lifecycle	X	
K13	Principles of marketing as it relates to packaging (4 P's: place, price, product and promotion)	X	
K14	Legislation and standards relating to packaging, e.g. Packaging Essential Requirements, dangerous goods, packaging waste, good manufacturing practice, labelling	X	
K15	Value chain analysis and the principles of continuous improvement techniques, e.g. DMAIC (Define, Measure, Analyse, Improve and Control), 5S		X
K16	Standard packaging formats covering primary, secondary and tertiary, including ancillaries	X	

K17	The role of quality assurance and control in packaging; the types of quality checks undertaken throughout the lifecycle	X	
K18	Packaging documentation, including how to write/create and interpret a brief, specification, technical drawing and report	X	
K19	Printing and decorative technologies and their applications e.g. flexo, litho, gravure and digital	X	
K20	Artwork, graphics in packaging, including artwork creation and reprographics, how to test colour and finishes	X	
K21	The principles of packaging design, including structural, functional and inclusive design	X	
K22	The packaging innovation and development workflow and process including design, prototyping, approvals, translations, timescales, certifications and involvement of stakeholders	X	
K23	Supplier management, including contractual agreements, procurement, standards for approving suppliers (ethical, quality accreditation, audit), methods of ensuring operational compliance (Key Performance Indicators, scorecards)	X	
K24	The principles of project management, including critical paths, Gantt charts	X	
K25	Innovation in packaging, including intellectual property, open innovation, scout and horizon scanning, trends and insights, desk research; academic and funding sources to explore new opportunities	X	
K26	Design for sustainability including the circular economy, life cycle assessment, the range of influences (customer strategies, Government and Non-Governmental Organisations) and practical approaches including source reduction optimisation and eco design guidelines	X	
K27	The principles of team management e.g. coaching, mentoring, appraisals	X	
K28	Packaging specific software tools e.g. pallet optimisation software, computer aided design	X	

Skills

		P	T
S1	Translate customer briefs to determine a technical packaging brief, which considers business, consumer, operational and sustainability requirements	X	
S2	Identify, design, develop and source packaging solutions demonstrating best value, environmental impact and fitness for purpose to meet briefs	X	
S3	Critically analyse and apply packaging design options against complex inter-related touchpoints to meet the needs from design to end of life. e.g. environmental impact using life cycle assessment	X	
S4	Liaise and coordinate with other stakeholders (e.g. supplier, R&D, marketing, finance, technical) to deliver packaging development projects. When appropriate take the lead and drive the project	X	
S5	Initiate and lead projects, using project management tools and skills to deliver projects to time, cost, specification and quality	X	
S6	Identify and control project risks through mitigation plans	X	

S7	Define parameters, design of experiments, success criteria and protocols for projects appropriate to the brief	X	
S8	Lead the design and management of packaging trials (e.g. prototypes, production of samples, transit, shelf life, sensory, machine-ability)	X	
S9	Document and evaluate trials at different project stages (e.g. laboratory, pilot plant, supplier, filling & packing, transit and distribution) recommending further activities	X	
S10	Report results and conclusions. Hypothesise and recommend further adaptations and optimisations	X	
S11	Ensure compliance with packaging & market regulatory requirements	X	
S12	Demonstrate financial acumen, e.g. managing budget(s); interpreting financial data and evaluating total product costs and their impact throughout the value chain	X	
S13	Investigate and interpret non-conformance issues related to Packaging. Resolve using root cause analysis and apply change management		X
S14	Effectively communicate with stakeholders at different levels, building positive working relationships; influencing and persuading key stakeholders effectively	X	
S15	Translate business strategy into internal and external capability building programmes (e.g. supplier quality improvement programmes)		X
S16	Demonstrate critical thinking, analytical and statistical skills to evaluate and interpret complex information and data (e.g. process capability)	X	
S17	Proactively identify opportunities to improve packaging based on an analysis of costs, continuous improvement, environmental impact, waste avoidance and process improvements		X
S18	Provide comprehensive technical services to internal colleagues, customers and suppliers	X	
S19	Coach and/or mentor	X	
S20	Use visual and digital tools systems, e.g. project management, computer aided engineering, business management systems, palletisation software	X	

Behaviours

		P	T
B1	Safety first attitude: ensures safety of self and others, good manufacturing practices, challenges safety issues, leads by example	X	
B2	Inspires others. Acts as an ambassador for the packaging profession	X	
B3	Can do attitude. Tenacious, yet pragmatic. Strives for excellence. Self-motivated: drive and energy to lead and influence	X	
B4	Demonstrates an entrepreneurial and resilient mind-set. Ownership of work & results oriented: accepts responsibility, is proactive, time management, prioritises, provides solutions	X	
B5	Pride in work: aims for excellence, attention to detail, displays enthusiasm	X	
B6	Self-development: proposes objectives to support the business, seeks learning, drives the development of self and others	X	

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B7	Integrity and respect: respect for colleagues and stakeholders, adapts style where appropriate	X	
B8	Working in a team: builds good relationships with others, works collaboratively, contributes ideas, challenges appropriately and leads by example	X	
B9	Agility. Flexible to changing working environment and demands as well as handling ambiguity	X	
B10	Acts in alignment with the business vision and values	X	
B11	Innovation: demonstrates curiosity to foster new ways of thinking and working, taking account of the big picture	X	
B12	Championing an environmental & sustainability mindset: always considers the impact of their decision making on the environment	X	

Annex B – Grading criteria

The table below details the grading criteria for the work-based project.

It is based on the following principles:

- pass criteria shows the apprentice is demonstrating competence against the KSB statement; merit and distinction criteria build on the pass criteria to achieve a pass - pass, merit or distinction criteria must be demonstrated against all of the KSB statements
- to receive a merit – five or more of the eight KSB themes must be demonstrated at merit or distinction, with all other KSB themes demonstrated at a pass
- to receive a distinction – five or more of the eight KSB themes must be demonstrated at distinction, with all other KSB themes demonstrated at merit

Themes and Mapping to Standard Statements	Distinction criteria:	Merit criteria:	Pass criteria:	Fail criteria:
Work-based Project				
1. Appreciation and consideration of environmental impact and sustainability Mapping to occupational standard statements:	Proactive development and application of innovative environmental and sustainability strategies embedded within their own professional practice and fully integrated within all aspects of the project.	Demonstrates selecting and applying established environmental and sustainable practices within a project.	Evidence of appreciation and consideration of environmental impact and sustainability.	Fails to demonstrate an appreciation of the environmental issues associated with the packaging profession.

<ul style="list-style-type: none"> • K2, K3, K12, K26, S1, S2, S3, B2, B12 				
<p>2. Knowledge and application of Material Science and Technology</p> <p>Mapping to occupational standard statements:</p> <ul style="list-style-type: none"> • K1, K2, K4, K5, K8, K26, S7 	An innovative approach to the development and application of material science and technology.	Considers a wide range of options and justified reason for option selected.	Demonstrates the ability to identify, select and apply appropriate material science and technology in the development of packaging solutions.	Does not demonstrate knowledge of material science and technology and its application in the packaging profession.
<p>3. Awareness of legislation and standards to ensure compliance</p> <p>Mapping to occupational standard statements:</p> <ul style="list-style-type: none"> • K2, K14, K17, K23, K26, S3, S11, B1 	Identifies potential compliance issues and develops solutions to ensure compliance with current and future legislation & standards or explains appropriate action when questioned where the situation does not occur naturally.	Considers the impact of solutions on the complex requirements of the project.	<p>Understanding of legislation and regulations relevant to packaging.</p> <p>Identifies solutions that seek to ensure regulatory compliance.</p>	Does not show an understanding of legislation and regulations relevant to packaging.
<p>4. Appreciation and understanding of functional requirements of packaging</p>	An innovative approach to the development and application of the functional requirements of packaging	Effective translation of the pack requirements into the pack design e.g it is effective at containing the product, it	Knowledge and understanding of the functional requirements of packaging. Application of this knowledge in the	Does not demonstrate knowledge of the functional requirements of packaging.

<p>Mapping to occupational standard statements:</p> <ul style="list-style-type: none"> K1, K2, K4, K5, K6, K13, K16, K18, K21, S1, S2, S3, S7, S10, B11 	ensuring that all functional requirements are satisfied.	resists mechanical shocks throughout the supply chain.	development of packaging solutions.	
<p>5. Knowledge of end-to-end supply chain and its impact</p> <p>Mapping to occupational standard statements:</p> <ul style="list-style-type: none"> K5, K6, K8, K11, K12, K16, K17, K19, K20, K23, K26, K28, S2, S3, S4, S12, S14, S16, S18, B3, B4, B8 	Thorough understanding of the broader supply chain from the point the product goes into the package up to shipment, including intermediate storage, and point of use, its impact and their role within that system and final disposal. Taking an operational role in the management of the supply chain for a particular project.	Understanding of the broader supply chain, its impact and their role within that system. Actively contributing to the management of the supply chain.	Demonstrates knowledge of end-to-end supply chain and its impact. Supporting the management of suppliers.	Does not demonstrate an understanding of the wider supply chain and its impact.
<p>6. Applying a professional approach to work</p> <p>Mapping to occupational standard statements:</p>	Leads projects in a professional manner: motivates and influences people; articulating organisational purpose and values.	Ability to operate independently. Makes a positive contribution to the development of the organisation and actively engages with continuous improvement processes.	Demonstrates a professional approach to work; with understanding of the organisational purpose and values to support an effective work culture, with the ability to adapt to changing circumstances.	Does not demonstrate professionalism in all aspects of their role.

<ul style="list-style-type: none"> K22, K23, K24, K25, K27, S4, S5, S6, S9, S10, S14, S16, S18, S19, B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12 				
<p>7. Demonstrates an understanding of manufacturing operations and processes</p> <p>Mapping to occupational standard statements:</p> <ul style="list-style-type: none"> K3, K4, K8, K14, K17, K18, K19, K28, S1, S8, S9, S18, S20, B1 	<p>Comprehensive knowledge and understanding of manufacturing operations and processes beyond their own operational responsibilities, including a knowledge of how packaging materials are made and factors that contribute to their design; contributes to continuous improvement activities and provides technical support across the organisation.</p>	<p>Knowledge and understanding of broader manufacturing operations and processes and its application in the broader packaging profession e.g. beyond their own operational role. Application of this knowledge in the management and development of packaging projects.</p>	<p>Knowledge and understanding of manufacturing operations and processes and the application of this knowledge in the workplace.</p>	<p>Does not demonstrate knowledge of manufacturing operations and processes.</p>
<p>8. Demonstrates business acumen (consumer, economic, society) and the role of the packaging professional in a business context</p>	<p>Demonstrates an active contribution to improve business performance through their role as a packaging professional. Successfully manages projects and process</p>	<p>Ensures that projects are developed and managed in line with business goals.</p>	<p>Understands the business context of their role and its impact on business performance and acts in alignment with the business goals of the organisation.</p>	<p>Does not demonstrate appreciation of the role of the packaging professional in a business context.</p>

<p>Mapping to occupational standard statements:</p> <ul style="list-style-type: none">• K2, K11, K13, K23, K24, K25, S1, S2, S12, B6, B10	<p>ensuring that goals are met and delivered on schedule.</p>			
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The table below details the grading criteria for the Case Study test.

Themes and Mapping to Standard Statements	Pass criteria:	Fail criteria:
Knowledge of end-to-end supply chain and its impact Mapping to Standard Statements: <ul style="list-style-type: none"> • K15, S13, S15, S17 	Demonstrates knowledge of end-to-end supply chain and its impact. Application of knowledge and skills in relation to a product that is not part of their day-to-day work. Supporting the management of suppliers.	Does not demonstrate an understanding of the wider supply chain and its impact. Does not demonstrate application of knowledge and skills in relation to a product that is not part of their day-to-day work.
Demonstrates an understanding of manufacturing operations and processes Mapping to occupational standard statements: <ul style="list-style-type: none"> • K7, K9, K10 	Knowledge and understanding of broader manufacturing operations and processes and its application in the broader packaging profession e.g. beyond their own operational role. Application of this knowledge in the management and development of packaging projects.	Does not demonstrate knowledge of manufacturing operations and processes