

## **ST0422 Level 2 Science manufacturing process operative**

### **Assessment Plan**

#### **Introduction**

This Apprenticeship Assessment Plan (AAP) sets out the requirements for the assessment of the Level 2 Science manufacturing process operative apprenticeship. It should be read in conjunction with the General Requirements for Apprenticeship Assessment. Where there is conflict between this AAP and the General Requirements, this AAP takes precedence. Assessment organisations must also comply with the relevant regulatory framework for apprenticeship assessment.

It is important that the assessment of apprentices is proportionate, valid, and provides reliable evidence of an apprentice's attainment of the relevant knowledge and skills. As such, assessment organisations must design assessments to ensure:

- employers have confidence that the apprentice has reached the expected performance standard
- apprentices are sufficiently secure in their knowledge and skills, so that they could demonstrate their competence in different contexts (for example, a different workplace)

#### **Assessment Outcomes**

The assessment outcomes group and summarise the knowledge and skills that must be demonstrated in assessments. All assessment outcomes must be assessed.

Knowledge and skills statements in **bold** are mandatory and must be assessed in every version of the assessment that is made available.

<b>Assessment Outcome</b>	<b>Mapping</b>
<b>AO1: Health, Safety, Environmental and Sustainability Compliance</b> Follows health, safety, environmental and sustainability regulations and organisational procedures to maintain a safe and compliant working environment.	<b>K3, K4, K5, K6</b> <b>S1, S2, S14, S15</b>
<b>AO2: Process Manufacturing Operations</b> Follows standard operating procedures to prepare materials, set up and operate plant and equipment and monitor process manufacturing. Carries out end-of-process activities in line with instructions or procedures.	<b>K1, K2, K7, K8*, K9*, K10, K11, K12, K13</b> <b>S4, S5*, S6, S7, S8*, S10,</b>

Assessment Outcome	Mapping
	S11*, S12*, S17*
<b>AO3: Quality Assurance and Continuous Improvement</b> Supports quality assurance procedures and continuous improvement activities to maintain product standards and support operational efficiency.	<b>K14, K15*, K17*</b>  <b>S9, S16*</b>
<b>AO4: Work Organisation and Record Keeping</b> Organises work tasks and stock. Records operational information using paper-based or digital systems to ensure compliance with organisational requirements.	K16*, K20, <b>K21*</b>  <b>S3, S13*, S20, S22*</b>
<b>AO5: Communication and Teamwork</b> Uses verbal and written communication techniques and team working principles. Complies with General Data Protection Requirements (GDPR) and equality, diversity and inclusion (EDI) regulations.	K18*, K19*, K22, K23  S18*, S19*, S21

(\*) Knowledge and skills statements which offer opportunities to develop functional English and maths are identified with an asterisk.

### **Assessment requirements**

Assessment organisations must set apprenticeship assessments. Assessment organisations should consider how technology and digital tools can support innovation and efficiency.

Assessment organisations must design apprenticeship assessments to include an **observation** with question and answers and, if applicable, any relevant constraints.

Any additional assessment(s) must be selected from the following list of methods to ensure the assessment outcomes are met in full:

- portfolio of evidence
- simulated task
- interview
- multiple choice test

Assessment organisations must have due regard to any relevant frameworks, standards, guidance or other documents that may be published by industry regulators, professional bodies, and other representative groups.

Apprentices may be assessed at any appropriate point during their apprenticeship programme.

Assessments may be designed to allow a centre or training provider to mark assessments. The assessment organisation is responsible for ensuring all assessments are sufficiently reliable and valid, and for the accuracy of any centre or training provider marking.

### **Performance descriptors**

Performance descriptors describe the level of performance required to achieve a pass or distinction grade. Assessment organisations must design assessments that align with these descriptions.

<b>Performance Category</b>	<b>Pass (Occupationally Specific)</b>	<b>Distinction (Occupationally Specific)</b>
<b>Applied Knowledge</b>	Demonstrates knowledge of health, safety, environmental, sustainability requirements, scientific, standard operating procedures, process equipment, quality assurance requirements, work organisation methods, record-keeping systems, and communication and GDPR principles to complete well-defined tasks safely and consistently.	Applies knowledge with consistently high accuracy and insight, showing an ability to interpret how manufacturing conditions, quality requirements, and safety expectations interact.
<b>Applied Skills</b>	Uses practical and cognitive skills to follow standard operating procedures (SOPs), prepare materials, set up and operate equipment, and monitor processes in line with SOPs and instructions. Carries out basic quality checks, organises work tasks, and uses appropriate communication methods with consistency and purpose.	Integrates practical and cognitive skills to perform routine and occasional varied tasks with precision. Demonstrates skill in improving flow, identifying small inefficiencies or supporting continuous improvement or quality assurance beyond the basic requirement.

<p><b>Regulatory and Procedural Awareness</b></p>	<p>Follows relevant health, safety, environmental and sustainability regulations, organisational procedures, SOPs, quality procedures, record-keeping requirements, and GDPR and EDI expectations accurately and without error in routine contexts.</p>	<p>Demonstrates compliance with regulatory and procedural requirements, demonstrates an understanding of the impact of potential risks, deviations, or compliance issues. Demonstrates a forward-thinking approach to maintaining safe, compliant and well-controlled operations, contributing suggestions that could potentially strengthen compliance.</p>
<p><b>Communication and Collaboration</b></p>	<p>Communicates clearly in verbal and written formats to support production activities. Follows team working principles to work effectively.</p>	<p>Communicates with clarity and sensitivity, adapting style to different audiences, and proactively supports team coordination, anticipating information needs and promoting inclusion and effective collaboration.</p>
<p><b>Information Use and Decision Making</b></p>	<p>Gathers and records operational and quality data accurately using paper or digital systems to inform decisions and maintain compliance.</p>	<p>Interprets operational and quality data. Demonstrates insight by supporting continuous improvement with informed suggestions.</p>
<p><b>Responsibility and Autonomy</b></p>	<p>Takes responsibility for completing assigned tasks, following health, safety, environmental and sustainability requirements, operational procedures, quality processes, organisational systems, and communication expectations. Works safely and independently in familiar situations, escalating issues appropriately.</p>	<p>Exercises informed judgement and self-direction, often anticipating operational needs such as preparing materials, organising workstations, identifying potential safety or quality concerns early, or supporting team members during high-demand periods.</p>