Science Manufacturing Process Operative Level 2 Apprenticeship Standard (ST0422) End-Point Assessment Specification

This guide describes the different types of End-Point Assessment tests, the test rules and who should be involved. Preparing for End-Point Assessment and working with SIAS are also covered.

SIAS is the science industry assessment service. It is part of the Cogent Skills Group. For further information about apprenticeship standards and Trailblazers please contact info@siasuk.com.

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Qualification Objective

The aim of this qualification is to ensure that the apprentice is occupationally competent against the knowledge, skills and behaviours outlined in the assessment plan for this standard.

The occupation is found in science process manufacturing industries.

Science process manufacturing is varied. It includes industries such as biotechnology, chemical, composites, petrochemical, polymer, and pharmaceutical.

Science process industries combine raw materials and apply a science-based process or processes - biological, chemical, or physical - to create products. Products are made continuously or in batches.

Process manufacturing industries are highly regulated. The Health and Safety Executive and other industry regulators inspect employers. The Control of Major Accident Hazards (COMAH) Regulations apply to some process manufacturing companies. Employers must manage risks to the employee, product, environment, and sometimes the wider community.

The broad purpose of the occupation is to complete science-based manufacturing processes to produce materials and products following standard operating procedures. Products are varied and may include battery cells, composite wind turbine parts, drugs, plastic bottles, proteins, and solvents. This involves checking and preparing materials and using specialist science-based manufacturing process plant or equipment. They monitor the process and take action to resolve deviations. Maintaining the work area is part of the role. They contribute to quality control, continuous improvement, and problem-solving activities. They also complete work records, which are important in regulated workplaces.

In their daily work, they interact with other science process manufacturing operatives and technicians, along with colleagues from other business functions. They typically report to a shift manager, team leader, or supervisor.

They are responsible for meeting work schedules. They must work to quality, health and safety, and environment regulations and procedures. This may include wearing personal protective equipment and complying with Control of Substances Hazardous to Health (COSHH).

They may work alone or as part of a team, under supervision.

They work in varied conditions. Some workplaces may be physically demanding. Some may require use of specialist safety equipment. They complete shift work. Sites often run 24 x 7, 365-days a year.

Prior Learning

There are no requirements for previous knowledge or qualifications before a learner begins this qualification.

Overview

A full-time apprentice typically spends 18 months on-programme (this means in training before the gateway) working towards competence as a Science Manufacturing Process Operative. The apprentice must spend at least 12 months on-programme. The apprentice must spend at least 20% of their on-programme time completing off-the-job training.

The following grades are available for the apprenticeship:

- fail

- pass
- merit
- distinction

Competence Evaluation

During the apprenticeship, regular evaluation of the competence of the apprentice against the apprenticeship standard will help to ensure that they achieve full occupational competence by the end of their training, and they are ready for End-Point Assessment. Confirmation from the employer that the apprentice is fully competent is needed before End-Point Assessment can take place.

As competence evaluation is an in-programme activity, the process that is used for this has not been mandated. It is for the employer supported by their training provider to decide how they wish to do this. To help with this SIAS has produced the SIAS Competence Tracker.

Gateway Requirements

The apprentice's employer must confirm that they think their apprentice is working at or above the science manufacturing process operative occupational standard. The apprentice will then enter the gateway. The employer may take advice from the apprentice's training provider(s), but they must make the decision.

The apprentice must meet the gateway requirements before starting their EPA.

These are:

- achieved English and mathematics Level 1.
- for the interview underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence

The EPA period starts when SIAS confirms all gateway requirements have been met.

Portfolio of evidence requirements

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by this assessment method. The portfolio of evidence will typically contain 10 discrete pieces of evidence. Evidence should be mapped against the KSBs.

Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.

Evidence sources may include:

- workplace records
- workplace policies and procedures
- witness statements
- annotated photographs
- video clips (maximum total duration 10 minutes); the apprentice must be in view and identifiable
- learning records and development plans

This is not a definitive list; other evidence sources can be included.

The portfolio should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance (for example, witness statements) rather than opinions. The evidence provided should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

SIAS will not assess the portfolio of evidence directly as it underpins the interview. The End-Point Assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review.

The apprentice must submit the gateway evidence to SIAS.

Assessment Methods

This End-Point Assessment has 3 assessment methods:

1. Observation with questions
2. Interview underpinned by a portfolio of evidence
3. Multiple Choice Test

Observation with Questions

In the observation with questions, an End-Point Assessor observes the apprentice in their workplace and asks questions. The apprentice completes their day-to-day duties under normal working conditions. This allows the apprentice to demonstrate the KSBs mapped to this assessment method through naturally occurring evidence. Simulation is not permitted during the observation.

The observation with questions must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

The End-Point Assessor conducts and assesses the observation with questions.

The End-Point Assessor must only observe one apprentice at a time to ensure quality and rigour and they must be as unobtrusive as possible.

The observation with questions must take 2 hours.

The End-Point Assessor can increase the time of the observation with questions by up to 10%. This time is to allow the apprentice to complete a task or respond to a question if necessary.

The observation may be split into discrete sections held on the same working day.

SIAS will manage invigilation of the apprentice during the assessment to maintain security of the EPA, in line with their malpractice policy. This includes breaks and moving between locations.

The End-Point Assessor must explain to the apprentice the format and timescales of the observation with questions before it starts. This does not count towards the assessment time.

The End-Point Assessor should observe the following during the observation:

- carry out process manufacturing operations
- arrange and prepare materials for process activity
- contribute to quality control

- complete process work records
- contribute to maintaining own work area (housekeeping)

Activities may be completed in relation to the same process or different processes.

These activities provide the apprentice with the opportunity to demonstrate the KSBs.

Questioning can occur both during and after the observation and the time for questioning is included in the overall assessment time. The End-Point Assessor must ask at least 5 questions. To remain as unobtrusive as possible, End-Point Assessor should ask questions during natural stops between tasks and after completion of work rather than disrupting the apprentice's flow. Follow-up questions are allowed. The End-Point Assessor must use the questions from the SIAS's question bank or create their own questions in-line with SIAS's training.

The End-Point Assessor must ask questions about KSBs that were not observed to gather assessment evidence. These questions are in addition to the set number of questions for the observation and should be kept to a minimum. The End-Point Assessor can also ask questions to clarify answers given by the apprentice.

The End-Point Assessor must record the KSBs observed, KSBs demonstrated in answers to questions and the grade achieved. The apprentice's answers to questions must also be recorded.

The End-Point Assessor makes the grading decision. The observation and responses to questions must be assessed holistically by the End-Point Assessor when they are deciding the grade.

Observation with Questions Descriptors

Theme KSBs	**Pass** – Apprentices must demonstrate all the pass descriptors	**Distinction** – Apprentices must demonstrate all the pass descriptors AND all the distinction descriptors
Health and safety K5, S1, S14, B1	Prioritises safe systems of work, following procedures in line with process industry health and safety regulations, standards and guidance and complies with housekeeping procedures to maintain a safe and tidy work area. Wears PPE correctly. Explains emergency stop procedures. (K5, S1, S14, B1)	Explains why compliance with health and safety regulations and following safe systems of work is a priority within process industries. (K5, S1, B1)
Work Organisation K21, S3, B3	Takes responsibility to complete allocated tasks within required timescales to the required quality, following work instructions. (K21, S3, B3)	Implements and follows procedures without error, mitigating against potential issues, supporting a right first-time outcome with no back tracking. (K21, S3, B3)
Process Operations K12, S4, S5, S6, S7, S8	Follows process manufacturing standard operating procedures (SOP). (K12, S4) Conducts material preparation in line with SOP. (S5)	Identifies potential issues that could arise in process. Explains how they help prevent them occurring by following SOPs. (K12, S4, S8)

Theme KSBs	**Pass** – Apprentices must demonstrate all the pass descriptors	**Distinction** – Apprentices must demonstrate all the pass descriptors AND all the distinction descriptors
	Checks and sets up process industry tools, plant, or equipment in line with SOP. (S6) Uses process industry tools, plant, or equipment in line with SOP. (S7) Monitors process and takes corrective action to meet specification in line with SOP. (S8)	
Quality Assurance K14, S9	Applies quality assurance procedures. Identifies any specification deviation, taking action in line with quality assurance procedures. (K14, S9)	Explains the importance of applying product quality assurance procedures and potential consequences of not doing do. (K14, S9)
Communication K18, S19	Communicates with others using verbal techniques that are suitable for the context and support task completion. (K18, S19)	N/A
Documentation K17, K19, S11, S18	Collects and interprets information. (S11) Records information - paper based or electronic - in line with work record requirements using written techniques that are suitable for the context and supports task completion. (K17, K19, S18)	Explains the importance of completing documentation correctly and the potential impact of not doing so. (K17, S11, S18)

Observation with Questions Knowledge, Skills and Behaviours

Ref	Grading descriptor
Knowledge	
K5	Risk assessments and safe systems of work within process industries. Personal Protective Equipment (PPE). Isolation and emergency stop procedures.
K12	Standard operating procedures (SOP). What they are and why they are important.
K14	Quality assurance requirements and monitoring processes.
K17	Work record requirements and importance of records for traceability and audits. Management information systems.
K18	Verbal communication techniques.
K19	Written communication techniques.
K21	Work organisation and time management techniques.
Skills	
S1	Follow procedures in line with process industry health and safety regulations, standards, and guidance.
S3	Follow work instructions.

S4	Follow process manufacturing standard operating procedures.
S5	Conduct material preparation for example, measure, weigh, mix and load materials.
S6	Check and set up science process industry tools, plant, or equipment.
S7	Use science process industry tools, plant, or equipment required for task.
S8	Monitor process manufacturing and take corrective actions to meet specification.
S9	Apply product quality assurance procedures for example, take product samples, inspect products.
S11	Collect and interpret information.
S14	Comply with housekeeping procedures for example, clean equipment and machinery, tidy work area.
S18	Record information (text and data) - paper based or electronic for example, quality control documentation, cleaning logs, handover notes, stock inventory systems.
S19	Communicate with colleagues verbally.
Behaviours	
B1	Put health and safety first.
B3	Take ownership for quality of given work.

Interview underpinned by a portfolio of evidence

In the interview, the End-Point Assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

The interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.

The End-Point Assessor conducts and assesses the interview.

The purpose of the End-Point Assessor's questions will be to cover the following themes:

- science manufacturing process operative's role
- stock control
- end of process procedures
- environment and sustainability
- continuous improvement
- information technology
- team working

The End-Point Assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the interview.

The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.

The interview must last for 60 minutes. The End-Point Assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

In the interview, the End-Point Assessor must ask at least 7 questions. Follow-up questions are allowed. The End-Point Assessor must use the questions from SIAS's question bank or create their own questions in-line with SIAS's training.

The End-Point Assessor must keep accurate records of the assessment. The records must include the KSBs met, the grade achieved and answers to questions.

The End-Point Assessor makes all grading decisions.

Interview Underpinned by a Portfolio of Evidence Grading Descriptors

Theme KSBs	**Pass** – Apprentices must demonstrate all the pass descriptors	**Distinction** – Apprentices must demonstrate all the pass descriptors AND all the distinction descriptors
Science Manufacturing Process Operative's role K2, S12, S22, B6	Outlines their process operative role, describing how they identify and resolve or report issues in line with limits of responsibility. (K2, S12)	Identifies how their role impacts on wider manufacturing process operations. (K2)

Theme KSBs	**Pass** – Apprentices must demonstrate all the pass descriptors	**Distinction** – Apprentices must demonstrate all the pass descriptors AND all the distinction descriptors
	Outlines learning and development they have completed to support competence in their role. (S22, B6)	
Stock Control K16, S13	Describes how they store materials, monitor, and rotate stock in line with stock requirements. (K16, S13)	Describes the importance of accurate stock control and potential impact to the business of not following stock requirements. (K16, S13)
End of Process Procedures S10	Describes how they conduct end of process in line with procedures. (S10)	N/A
Environment and sustainability K6, S2, S15, B2	Outlines the potential impact that process industries have on the environment and how that is controlled through regulations. Describes how they follow procedures in line with environmental and sustainability regulations, standards, and guidance and how they consider the environment through the efficient use of resources. Describes how they identify and segregate resources for reuse, recycling, and disposal in line with waste reduction, waste streams, and recycling requirements. (K6, S2, S15, B2)	Explains how their company's or industry's environmental and sustainability practice exceed regulatory requirements, or could be changed to better support, environmental and sustainability targets. (K6)
Continuous Improvement K15, S16	Describes how they apply basic continuous improvement techniques. (K15, S16)	Explains how the continuous improvement techniques they apply contribute to or have the potential to contribute to overall business effectiveness. (K15, S16)
Information Technology K20, S20	Describes how they use IT in the workplace for example, digital manufacturing management systems, virtual learning platforms, word processing and email, and the importance of data protection and cyber security. (K20, S20)	N/A
Team Working K22, K23, S21, B4, B5	Describes how they meet their team's work goals and adapt to changing work requests, applying team working principles and taking account of individuals needs in relation to equality, diversity, and inclusion. (K22, K23, S21, B4, B5)	Explains how their team focus supports wider teams to meet their goals. (K22, S21, B5)

Interview Underpinned by a Portfolio of Evidence Knowledge, Skills and Behaviours

Ref	Grading descriptor
Knowledge	
K2	Science manufacturing process operative role. Limits of responsibility.
K6	Environment and sustainability regulations and role of the Environmental Agency. Types of pollution and control measures: noise, smells, spills, and waste. Efficient use of resources. Recycling. Waste reduction and waste streams.
K15	Basic continuous improvement techniques: 5 Why's, 5S, KAIZEN.
K16	Stock requirements: control systems, and stock rotation.
K20	Information technology: digital manufacturing management systems, virtual learning platforms, word processing, and email. General data protection regulation (GDPR). Cyber security.
K22	Principles of team working.
K23	Equality, diversity, and inclusion.
Skills	
S2	Follow procedures in line with process industry environmental and sustainability regulations, standards, and guidance.
S10	Conduct end of process procedures for example, finish, pack, label, discharge, move, and store batches.
S12	Identify and resolve or report issues.
S13	Store materials, monitor, and rotate stock.
S15	Identify and segregate resources for reuse, recycling, and disposal.
S16	Apply basic continuous improvement techniques for example, 5Why's, S5, and KAIZEN.
S20	Use information technology for example, digital manufacturing management systems, virtual learning platforms, word processing, and email. Comply with GDPR and cyber security procedures.
S21	Apply team building principles.
S22	Carry out and record learning and development.
Behaviours	
B2	Consider the environment.
B4	Adapt to changing work requests.
B5	Team focus to meet work goals for example, work collaboratively.
B6	Seek learning and development opportunities.

Multiple Choice Test

A multiple-choice test is an assessment for asking questions in a controlled and invigilated environment. It gives the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method.

This multiple-choice test must be appropriately structured to give the apprentice the opportunity to demonstrate the knowledge mapped to this assessment method to the highest available grade.

The multiple-choice test can be computer or paper based.

The multiple-choice test must consist of 40 multiple-choice questions.

Multiple-choice questions must have four options, with one correct answer.

The apprentice must have 60 minutes to complete the multiple-choice test.

The multiple-choice test is closed book which means that the apprentice cannot refer to reference books or materials whilst taking the test.

The multiple-choice test must be taken in the presence of an invigilator. If the test can be taken on-line, specialised (proctor) software can be used to ensure the security of the test.

Multiple Choice Test Knowledge, Skills and Behaviours

Ref	Grading descriptor
Knowledge	
K1	Process manufacturing definition. Types of process products across process industries. Types of employers. Types of customers.
K3	Process industry safety: high-hazard sites and their potential impact, and The Control of Major Accident Hazards Regulations (COMAH).
K4	Awareness of health and safety regulations and requirements and impact on role. Health and Safety at Work Act. Control of Substances Hazardous to Health (COSHH). Manual handling. Slips, trips, and falls. Situational awareness. Safety equipment: guards, signage, fire extinguishers.
K7	Fundamentals of process chemistry: liquids, gases, and solids.
K8	The effects of temperature, pressure, and flow on liquids, gases, and solids.
K9	Awareness of process industry methods: measuring of raw ingredients and materials, blending, mixing, combining, melt processing, moulding, extrusion, and formulations.
K10	Common science manufacturing industry plant, equipment, and tools: pumps, valves, temperature gauges, filtration equipment, tanks, vessels and production and processing machinery, and control systems; what they are and what they do. The importance of operational checks.
K11	Automation and digitalisation of manufacturing processes and its benefits.
K13	Process and product specifications. Continuous and batch manufacturing. Manufacturing environments.
Skills	
S17	Perform simple calculations for example, raw material quantity and production calculations.

Final Grade

The assessment methods contribute equally to the overall EPA pass grade.

Performance in the EPA determines the apprenticeship grade of:

- fail

- pass
- merit
- distinction

An End-Point Assessor must individually grade the observation with questions and interview underpinned by a portfolio of evidence according to the requirements set out in this EPA plan.

SIAS will combine the individual assessment method grades to determine the overall EPA grade.

If the apprentice fails one or more assessment methods, they will be awarded an overall EPA 'fail'.

The apprentice must achieve at least a pass in all the assessment methods to get an overall 'pass'. To achieve an overall EPA 'merit,' the apprentice must achieve a distinction in one EPA method (the observation with questions or interview underpinned by a portfolio of evidence), and a pass in the other EPA methods. To achieve an overall EPA 'distinction,' the apprentice must achieve a distinction in the observation with questions and interview underpinned by a portfolio of evidence, and a pass in the multiple-choice test.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

Observation with Questions	Interview Underpinned by a Portfolio of Evidence	Multiple Choice Test	Overall Grading
Fail	Any Grade	Any Grade	Fail
Any Grade	Fail	Any Grade	Fail
Any Grade	Any Grade	Fail	Fail
Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Merit
Pass	Distinction	Pass	Merit
Distinction	Distinction	Pass	Distinction

Moderation

SIAS will undertake moderation of End-Point Assessor decisions through observations and examination of documentation on a risk sampling basis, i.e., a minimum of 20% for experienced assessors and 100% for new assessors or where inconsistencies have been identified. Results cannot be confirmed until moderation has been completed.

Re-takes / re-sits

If the apprentice fails one or more assessment methods, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and SIAS agree the timescale for a re-sit or re-take. A re-sit is typically taken within 2 months of the EPA outcome notification. The timescale for a re-take is dependent on

how much re-training is required and is typically taken within 4 months of the EPA outcome notification.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of pass for a re-sit or re-take, unless SIAS determines there are exceptional circumstances.

Certification

The outcomes from the End-Point Assessment will be reviewed and a grade conferred by SIAS in accordance with SIAS QA procedures, which are available from SIAS. SIAS will notify the employer of the outcome of each of the assessments.

SIAS will apply for the apprentice's certificate, which will be sent by ESFA. The certificate confirms that the apprentice has passed the End-Point Assessment, has demonstrated full competency across the standard and is job-ready.

Registered End-Point Assessor standard criteria

End-Point Assessors must hold a current UK qualification for workplace vocational assessors or a workplace competence assessor award. They must also be competent in the relevant field they are assessing as stated in the assessment plan.

Individuals must be able to demonstrate they possess practical and up-to-date knowledge of current working practices, appropriate to the science manufacturing process sector.

End-Point Assessors must:

- Maintain a continuous, up-to-date, and accurate record of their CPD activities.
- Demonstrate that their CPD activities are a mixture of learning activities relevant to current or future practice.
- Seek to ensure that their CPD has benefited the quality of their practice.
- Seek to ensure that their CPD has benefited the users of their work.
- Present a written profile containing evidence of at least 2 days CPD in the last 12 months on request.
- complete an SIAS induction to demonstrate working knowledge of the apprenticeship standard and assessment methodology.

There may be a requirement to hold additional specialist training or security clearance as required by the industry sector.

Assessment Specification

The assessment specification can be found in the published assessment plan for the standard. Details of which elements of the apprenticeship standard will be tested by each test are given in the Mapping knowledge, skills, and behaviours section of this guide.

Mapping of knowledge, skills, and behaviours

Key:	
Multiple Choice Test	MCQ
Interview Underpinned by Portfolio of Evidence	Int
Observation with Questions	Obs

KSB to be assessed	Assessment Method
Knowledge	
K1 Process manufacturing definition. Types of process products across process industries. Types of employers. Types of customers.	**MCQ**
K2 Science manufacturing process operative role. Limits of responsibility.	**Int**
K3 Process industry safety: high-hazard sites and their potential impact, and The Control of Major Accident Hazards Regulations (COMAH).	**MCQ**
K4 Awareness of health and safety regulations and requirements and impact on role. Health and Safety at Work Act. Control of Substances Hazardous to Health (COSHH). Manual handling. Slips, trips, and falls. Situational awareness. Safety equipment: guards, signage, fire extinguishers.	**MCQ**
K5 Risk assessments and safe systems of work within process industries. Personal Protective Equipment (PPE). Isolation and emergency stop procedures.	**Obs**
K6 Environment and sustainability regulations and role of the Environmental Agency. Types of pollution and control measures: noise, smells, spills, and waste. Efficient use of resources. Recycling. Waste reduction and waste streams.	**Int**
K7 Fundamentals of process chemistry: liquids, gases, and solids.	**MCQ**
K8 The effects of temperature, pressure, and flow on liquids, gases, and solids.	**MCQ**
K9 Awareness of process industry methods: measuring of raw ingredients and materials, blending, mixing, combining, melt processing, moulding, extrusion, and formulations.	**MCQ**
K10 Common science manufacturing industry plant, equipment, and tools: pumps, valves, temperature gauges, filtration equipment, tanks, vessels and production and processing machinery, and control systems; what they are and what they do. The importance of operational checks.	**MCQ**
K11 Automation and digitalisation of manufacturing processes and its benefits.	**MCQ**
K12 Standard operating procedures (SOP). What they are and why they are important.	**Obs**
K13 Process and product specifications. Continuous and batch manufacturing. Manufacturing environments.	**MCQ**
K14 Quality assurance requirements and monitoring processes.	**Obs**
K15 Basic continuous improvement techniques: 5 Why's, 5S, KAIZEN.	**Int**
K16 Stock requirements: control systems, and stock rotation.	**Int**

KSB to be assessed	Assessment Method
K17 Work record requirements and importance of records for traceability and audits. Management information systems.	**Obs**
K18 Verbal communication techniques.	**Obs**
K19 Written communication techniques.	**Obs**
K20 Information technology: digital manufacturing management systems, virtual learning platforms, word processing, and email. General data protection regulation (GDPR). Cyber security.	**Int**
K21 Work organisation and time management techniques.	**Obs**
K22 Principles of team working.	**Int**
K23 Equality, diversity, and inclusion.	**Int**
Skills	
S1 Follow procedures in line with process industry health and safety regulations, standards, and guidance.	**Obs**
S2 Follow procedures in line with process industry environmental and sustainability regulations, standards, and guidance.	**Int**
S3 Follow work instructions.	**Obs**
S4 Follow process manufacturing standard operating procedures.	**Obs**
S5 Conduct material preparation for example, measure, weigh, mix and load materials.	**Obs**
S6 Check and set up science process industry tools, plant, or equipment.	**Obs**
S7 Use science process industry tools, plant, or equipment required for task.	**Obs**
S8 Monitor process manufacturing and take corrective actions to meet specification.	**Obs**
S9 Apply product quality assurance procedures for example, take product samples, inspect products.	**Obs**
S10 Conduct end of process procedures for example, finish, pack, label, discharge, move, and store batches.	**Int**
S11 Collect and interpret information.	**Obs**
S12 Identify and resolve or report issues.	**Int**
S13 Store materials, monitor, and rotate stock.	**Int**
S14 Comply with housekeeping procedures for example, clean equipment and machinery, tidy work area.	**Obs**
S15 Identify and segregate resources for reuse, recycling, and disposal.	**Int**
S16 Apply basic continuous improvement techniques for example, 5Why's, S5, and KAIZEN.	**Int**
S17 Perform simple calculations for example, raw material quantity and production calculations.	**MCQ**
S18 Record information (text and data) - paper based or electronic for example, quality control documentation, cleaning logs, handover notes, stock inventory systems.	**Obs**
S19 Communicate with colleagues verbally.	**Obs**
S20 Use information technology for example, digital manufacturing management systems, virtual learning platforms, word processing, and email. Comply with GDPR and cyber security procedures.	**Int**
S21 Apply team building principles.	**Int**
S22 Carry out and record learning and development.	**Int**

KSB to be assessed	Assessment Method
Behaviours	
B1 Put health and safety first.	**Obs**
B2 Consider the environment.	**Int**
B3 Take ownership for quality of given work.	**Obs**
B4 Adapt to changing work requests.	**Int**
B5 Team focus to meet work goals for example, work collaboratively.	**Int**
B6 Seek learning and development opportunities.	**Int**

Further Information

For information about SIAS policies, quality assurance, re-sits, appeals, complaints and general enquiries please see our website: www.siasuk.com

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