

SEMLATA2-01 - FY9W 04

Follow health and safety procedures for scientific or technical activities



Overview

This unit covers the competences you need to follow health and safety procedures in a workplace where scientific or technical activities are performed. You are required to observe all legal, statutory and organisational requirements, and you must be able to identify any hazards and potential risks to health and safety. You must also follow workplace emergency procedures, to ensure your own safety and that of your colleagues and others. You will be required to work to the relevant standard operation procedures, legislation and organisational policy, and to use good techniques and practices.

Your responsibilities will require you to comply with health and safety requirements and organisational policy and procedures for the work that is undertaken. You must be able to recognise the limitations of your own competence with the work, and ask for appropriate help and advice in when it is needed. You will work under a high level of supervision, whilst taking responsibility for your own actions and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide an understanding of your work, in order to safely apply the appropriate scientific or technical principles and practices. You will be competent in the safe use of the materials, equipment, consumables and instruments used to perform your work activities, and with the procedures appropriate to your job. Your depth of knowledge will be sufficient to provide a sound basis for safely carrying out the scientific or technical activities, to a level that will allow the department to meet any agreed targets.

You will understand the safety precautions required when carrying out the scientific or technical activities for all operations and processes. You will be required to demonstrate safe working practices throughout, and will understand your responsibility for taking the necessary safeguards to protect yourself and others in the workplace.

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Performance criteria

You must be able to:

- P1 ensure that your work is carried out in accordance with workplace procedures
- P2 accurately assess health and safety in relation to your work and the workplace
- P3 use safe practices and the appropriate personal protective clothing and equipment for the work
- P4 identify any breaches to health and safety procedures and report them to the appropriate person as soon as possible
- P5 ensure that you maintain and keep tidy your work area to a standard of health and safety which is consistent
- P6 prepare, maintain and use equipment and materials in accordance with manufacturers' instructions and local safety regulations
- P7 recognise hazardous materials used in your work activities
- P8 follow established procedures to protect yourself and others during work activities
- P9 follow the correct procedure when an emergency arises or is suspected

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Knowledge and understanding

You need to know and understand:

Sector specific

- K1 the health and safety requirements of the area in which you are carrying out the scientific or technical activities
- K2 the implications of not taking account of legislation, regulations, standards and guidelines when conducting scientific or technical activities
- K3 the standard operating procedures, as set down in local operating manuals and schemes of work
- K4 the importance of following manufacturers' instructions
- K5 the techniques and processes you must use correctly in the workplace

You need to know and understand:

Organisation specific

- K6 the importance of wearing protective clothing, gloves and eye protection when handling hazardous materials
- K7 the specific safety precautions to be taken when working with scientific or technical equipment and computer-based systems (to include such things as safety guidance relating to the use of visual display unit (VDU) equipment and work station environment (such as lighting, seating, positioning of equipment), and repetitive strain injury (RSI))
- K8 the identity of health and safety representatives (such as the Laboratory Safety Officer, Staff Health & Safety Representatives and First-Aiders)
- K9 the location and correct use of emergency equipment (such as fire extinguishers, including the situations in which different types of fire extinguishers are used)
- K10 the lines of communication and responsibilities in your department, and their links with the rest of the organisation
- K11 the limits of your own authority and to whom you should report if you have problems that you cannot resolve

You need to know and understand:

Equipment/Process specific

- K12 local procedures for emergency evacuation (including escape routes and assembly points)
- K13 the location of fire alarms call points and how to operate them
- K14 the location of spillage kits, and the procedures to follow in the event of spillages of chemicals and/or biological fluids and materials
- K15 the control of substances hazardous to health (COSHH) regulations, and their application in the workplace
- K16 the types of hazards which may be present in the workplace and how these can be controlled
- K17 the correct storage and disposal procedures for hazardous materials

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- K18 the hazards associated with chemicals, radioactive substances and biological material
- K19 the reasons for cleaning work surfaces and equipment
- K20 why it is important to differentiate and segregate categories of waste
- K21 the correct procedures for the storage, transport and disposal of waste

Additional Information

Scope/range related to performance criteria

You must be able to:

1. identify health and safety standard operating procedures for **all** of the following:
 - 1.1 workplace hazards
 - 1.2 unsafe practices
 - 1.3 spillages
 - 1.4 manual handling
 - 1.5 VDU & RSI policies
 - 1.6 other (please specify)
2. recognise **three** of the following workplace hazardous substances:
 - 2.1 flammables (liquid or solid)
 - 2.2 radioactive material
 - 2.3 pyrophoric material
 - 2.4 corrosive material
 - 2.5 water reactive material
 - 2.6 oxidiser
 - 2.7 equipment or tools
 - 2.8 explosive material
 - 2.9 unstable reactive
 - 2.10 toxic/harmful material
 - 2.11 extreme temperature
 - 2.12 sensitising/irritant substance
 - 2.13 biological material
 - 2.14 compressed gas
3. follow established procedures for **both** of the following:
 - 3.1 workplace emergency (e.g. injury, spillage)
 - 3.2 workplace evacuation (e.g. fire, gas leak)

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Suite Laboratory And Associated Technical Activities Suite 2 2010

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