Analyse and compare forensic materials



Overview

This standard is about analysing and comparing forensic materials that have been recovered during examinations. These can include test results and materials recovered at scenes.

This is about gathering information relating to materials and making comparisons. Comparisons can include interrogating files, collections and databases. You will make decisions and record the processes and outcomes of your assessments.

Forensic materials can include body fluids, fingerprints, footwear impressions and tool marks. When assessing and comparing items and samples, this can include screening for blood, comparing finger and palm marks from scenes, comparing footwear with marks at scenes, comparing a tool with an impression, chemical analyses, DNA analyses, and microscopic comparisons of materials such as fibres.

Maintaining health and safety, together with the integrity and continuity of forensic materials, is of paramount importance.

There are two elements

- 1 Analyse forensic materials
- 2 Compare forensic materials

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Performance criteria

Analyse forensic materials

You must be able to:

- P1 identify information relating to the circumstances of forensic materials, including:
 - P1.1 where they were found
 - P1.2 how they were produced and recovered
- P2 prioritise recovered materials in line with operational requirements and evidential significance
- P3 review the quality of materials in line with organisational procedures
- P4 decide whether to proceed with the process of assessment in line with organisational procedures, and:
 - P4.1 whether further analysis or enhancement is required
- P5 identify any risk to safety linked to working with forensic materials, and: P5.1 take the necessary actions to minimise any risks
- P6 record decisions made regarding forensic materials in line with organisational requirements
- P7 maintain the integrity, security and continuity of materials in line with forensic procedures

Compare forensic materials

You must be able to:

- P8 assess the value of samples as potential evidence in line with organisational procedures
- P9 compare samples using the correct method in line with organisational policy
- P10 establish the effects of any variables when making comparisons in line with forensic procedures
- P11 compare forensic samples to relevant reference material in line with operational procedures, and:
 - P11.1 make use of databases and reference collections when sample needs are identified in line with organisational requirements
- P12 evaluate forensic samples with relevant comparison parameters in line with operational procedures

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- P13 identify the level of match between samples and reference material in line with forensic procedures
- P14 repeat examinations where necessary to assess and sample variations in line with forensic procedures
- P15 record work undertaken in line with organisational procedures, including:
 P15.1 your methods and results to ensure they support the outcome of
 evaluations
- P16 complete documentation in line with organisational procedures
- P17 inform relevant people of outcomes of evaluations in line with operational requirements

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Knowledge and understanding

Legal and organisational requirements

You need to know and understand:

- K1 the implications of current law, policies, operating procedures and guidelines relevant to analysing and comparison forensic materials
- K2 implications of current law, policies and procedures relating to:
 - K2.1 health and safety
 - K2.2 information and data handling
 - K2.3 human rights
 - K2.4 criminal justice system
- K3 national and organisational requirements regarding the verification of findings
- K4 the rationale and importance of independent verification
- K5 your level of authority to access information, and where additional authority may be needed
- K6 how to maintain effective communications with others

Assess and compare forensic materials

You need to know and understand:

- K7 the importance of ensuring that instruments used to assess and compare forensic materials are tested and calibrated
- K8 how to identify and access information relating to forensic materials including files and databases
- K9 the importance of maintaining the integrity and security of forensic materials, in ways that avoid:
 - K9.1 contamination
 - K9.2 cross-contamination
 - K9.3 loss
 - K9.4 degradation
- K10 examination methods and techniques for forensic sampling relevant to your area of operations
- K11 circumstances where examinations might need to be repeated or adapted, and methods for doing this
- K12 current opinions on good working practice in forensic sampling relevant to your area of operations

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- K13 how to make best use of technology to ensure that the most relevant and accurate evaluation is made
- K14 comparison and evaluation methods and techniques relevant to your area of operations
- K15 documentation relating to evaluations and how this should be completed

Health and Safety

You need to know and understand:

K16 potential health and safety risks associated with different types of potential evidence, and how to address them

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