# Topic Test 6 – Interpreting data

# Trainer & Assessor Marking Guide

## Criteria

### Unit code, name and release number

MSL924003 - Process and interpret data Release 1

\*\*This unit sits in all qualifications below. This assessment is not to be amended\*\*

### Qualification/Course code, name and release number

MSL60118 Advanced Diploma of Laboratory Operations Release 1

MSL50118 Diploma of Laboratory Technology Release 1

MSL40118 Certificate IV in Laboratory Operations Release 1

MSL30118 Certificate III in Laboratory Skills Release 1

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This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Instructions for the trainer and assessor** | This is a written assessment and will be assessing the student on their knowledge of the unit.  This assessment has 4 questions. It is to be conducted as a supervised open book test. Students are able to bring the Student Workbook into the test but no other information resources.  Model answers, sample responses or a criteria for each question are provided below.  Use these to support your judgement when determining a satisfactory result.  The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct. However, if a student provides information other than indicated below, and in the professional opinion of the assessor it is appropriate and meets the intent of the question, it may be considered correct.  The assessment feedback page must be signed by both the student and the assessor so the student displays that they have received, understood and accepted the feedback.  Arrange a time for each student to view their marked tests and the assessor feedback. Assessors are to retain all tests after students have viewed their results. Students to not keep a copy of their completed test.  Ensure the students name appears on the bottom of each page of the submitted assessment. |
| **About this marking guide** | The student’s response to each question must contain the information indicated in this marking guide in order for their response to be correct.  All questions must be answered correctly in order to satisfactorily complete this assessment event.  Assessors will need to make a judgement call as to whether each answer/response meets the criteria based upon the:   * Rules of Evidence:   + Validity – does the answer address the assessment question and does the evidence reflect the four dimensions of competency?   + Sufficiency – is the answer sufficient in terms of length and depth?   + Currency – has the work been done so recently as to be current?   + Authenticity – is this work the student’s own authentic work? * Principles of Assessment:   + Fairness – individual student’s needs are considered in the assessment process   + Flexibility – assessment is flexible to the individual student   + Validity – any assessment decision is justified, based on the evidence of performance of the student   + Reliability – evidence presented for assessment is consistently interpreted and assessment results are comparable irrespective of the assessor conducting the assessment * Dimensions of competency   + Task skills   + Task Management Skills   + Contingency Planning Skills   + Job Role Environment Skills |
| **Student must provide** | Students must provide pen/s, calculator and their Student Workbook. |
| **Assessor must provide** | One copy of the assessment task per student, filename MSL924003\_AE\_Kn\_2of7. |
| **Time allowed** | 30 minutes |

## Short answer

1. Results of tests are often presented in tables and then the interpretation of the results given in words. Comments may describe trends or make comparisons between samples.

**Table 1 - Potassium bromide dissolved at various temperatures**

Table 2 Potassium bromide dissolved at various temperatures

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Temp (°C) | 0 | 10 | 20 | 30 | 40 | 50 |
| **KBr (g)** | 52 | 60 | 64 | 73 | 76 | 81 |

**Task:** Describe the trend shown in table 1 above.

Students might include a graph as part of their working. This does not form part of the acceptable answer.

The acceptable answer needs to be descriptive and indicate that the pattern is directly proportional. Students do not need to use the words “directly proportional” but they do need to indicate that as the temperature increases the mass of KBr also increases.

1. A collaborative study is a study to determine the performance characteristics of a method of analysis, rather than the performance of laboratories or analysts. The results of one such analysis are presented in Table 2.

**Table 2 - A collaborative study of the analysis of lead in dried cabbage**

Table 3 A collaborative study of the analysis of lead in dried cabbage

|  |  |
| --- | --- |
| **Result (mg/kg)** | **Number of laboratories** |
| 0.10 | 1 |
| 0.14 | 1 |
| 0.18 | 2 |
| 0.22 | 2 |
| 0.26 | 2 |
| 0.34 | 3 |
| 0.46 | 1 |
| 0.50 | 2 |
| 0.54 | 2 |

How many laboratories’ results were within the acceptable range of 0.23 - 0.41 mg/kg?

5

1. Refer to Figure 1 below which shows causes of injury due to drug reaction.

**Figure 1 – Causes of injury due to drug reaction**

**Task:** Examine Figure 1 to identify the appropriate answers to the following questions

* 1. Which was the greatest cause of injury?

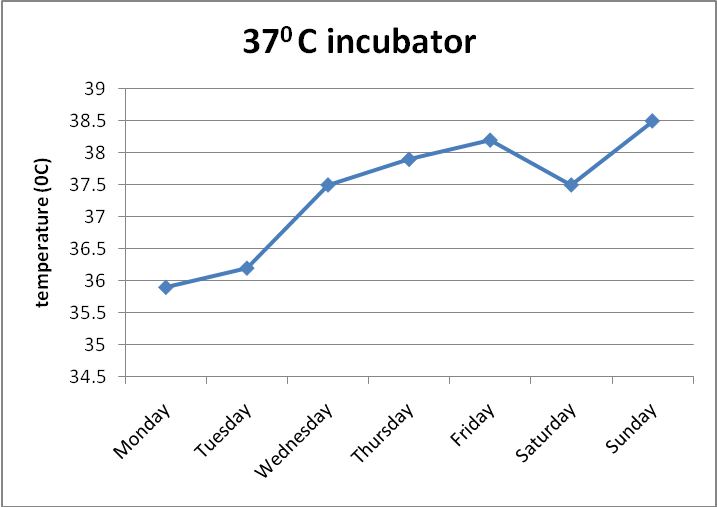
Allergic reations

* 1. How many injuries were due to an inappropriate drug being given to the patient?

25

1. Refer to the graph for the temperature changes in the 37°C incubator and answer the following questions.

**Figure 2 – Temperature changes in incubator**



1. On what day was the temperature 37.5°C?

Wednesday

1. What is the trend of the temperature?

It is trending upwards