

Sample assessment task

Unit 1, Outcome 1

Data and graphical solution

Outcome 1

On completion of this unit the student should be able to acquire, secure and interpret data, and design and develop a graphic solution that communicates the findings of an investigation.

Task

For Unit 1, Outcome 1, students are required to investigate an issue of their choice.

Students need to collect primary data on their issue once they have selected it. The primary data can be collected using one or more data collection methods, such as surveys and interviews, and needs to include both quantitative and qualitative data.

Once the data is collected students need to interpret the data and then design and develop a graphic solution that display the results of the investigation.

Appropriate graphical formats include annotations, charts, diagrams, flowcharts, infographics, maps, and timelines, or a combination of two or more of these formats.

During the task students need to ensure that all the data collected is referenced, and that participants involved in the data collection process have given consent to authorise the use of their data.

A sample of issues that can be investigated include:

- the use of social networking by people of different age groups
- the heritage of a class of students to three generations
- musical preferences by genre and favourite artists within each genre
- preferred hobbies, sports or entertainment of students in a class
- languages spoken in the households of a class of students
- the amount and type of religious observance over several generations of a family
- changes in TV-watching/cinema-going/music purchasing habits over time.

The issues listed above are only a guide and students are permitted to select an issue to investigate of their choice. The issue selected **does not** need to be related to Computing or the use of technology.

It is expected that each student works independently to complete their own investigation into an issue. Unit 1, Outcome 1 is not designed to be completed in groups.

This Outcome will require approximately 6–8 periods of 45 minutes to complete.

There are two main parts to Unit 1, Outcome 1:

- 1 data collection and interpretation
- 2 designing and developing the graphical solution.

Requirements

1	Describe the issue and the particular area that will be investigated.	2 marks														
2	Create a list of the individual pieces of data that will be collected. Indicate if each piece of data will be qualitative or quantitative.	2 marks														
3	List the data collection method/s that will be used to collect the data. Give a reason for your choice.	2 marks														
4	Discuss one data collection technique used to collect the data.	2 marks														
5	Discuss one legal and one ethical consideration that needs to be taken into account when collecting primary data.	2 marks														
6	Using an appropriate method reference the source of the data collected.	2 marks														
7	Explain measures used to ensure the integrity of data collected.	2 marks														
8	Outline one method used to secure the data once collected. Justify the method selected.	2 marks														
9	Describe one method used to protect the identity of the people who provided the data.	2 marks														
10	Use appropriate software to manipulate the data to identify any patterns or relationships within the data. Submit the data file after manipulation has occurred as evidence.	2 marks														
11	Describe two patterns or relationships found in the data.	2 marks														
12	Using appropriate design tools show how the graphic solution will appear and function.	4 marks														
13	Use appropriate software to develop the graphic solution. Ensure that the graphic solution: <ul style="list-style-type: none"> follows appropriate formats and conventions contains information that represents the data accurately is representative of all of the data collected indicates the source of data collected is attractive and clearly communicates a message only contains information relevant to the issue 	12 marks														
14	Complete the test table below to indicate if all of the characteristics listed appear in the graphic solution. It may be appropriate to test the solution yourself first, then ask others to complete the test table for your graphic solution.	2 marks														
<table border="1"> <thead> <tr> <th>Characteristic</th> <th>Achieved</th> </tr> </thead> <tbody> <tr> <td>Follows appropriate formats and conventions</td> <td></td> </tr> <tr> <td>Contains information that represents the data accurately</td> <td></td> </tr> <tr> <td>Is representative of all of the data collected</td> <td></td> </tr> <tr> <td>Indicates the source of data collected</td> <td></td> </tr> <tr> <td>Is attractive and clearly communicates a message</td> <td></td> </tr> <tr> <td>Only contains information relevant to the issue</td> <td></td> </tr> </tbody> </table>		Characteristic	Achieved	Follows appropriate formats and conventions		Contains information that represents the data accurately		Is representative of all of the data collected		Indicates the source of data collected		Is attractive and clearly communicates a message		Only contains information relevant to the issue		
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Total		40 marks														