

G627: Investigating the Scientist's Work – Sample Assignment A

Unit Name: Investigating the Scientist's Work	Unit Number: G627
Assignment Title: Information Pack for a Scientific Vocational Investigation	Assignment: G627 Sample Assignment A
Date Set:	Due Date:
Assessment Objective(s): AO1, AO2 & AO3	

Vocational Brief:

Plan and carry out a scientific vocational investigation.

The topic is to be chosen by you but can be based on work covered in the units already studied.

The investigation will involve

- research to obtain knowledge about the topic
- practical work to obtain data to confirm or disprove your original ideas.

The practical work must be carried out safely by you in the laboratories that you usually work in. If possible, several practical techniques should be used in the investigation.

Task:

You have **(x)** weeks in which to research, carry out and write up your investigation. Choose a topic that you have studied at AS and then ask a question based on this topic. This can form the basis of your investigation. The investigation is divided into two main tasks.

Task 1:

Planning - AO1

- Write a detailed and workable plan for your chosen investigation. In your plan you need to include everything you need to do (this includes your research, practical work and the write-up), how your investigation links to the requirements in the assessment grid, how long you are going to spend on each task and a check on target dates.
- Record evidence of any research you carry out with details of sources used.
- Record the aims of your investigation and details of how you are going to achieve this. Include full details of experimental work and also record any constraints under which you work.

Give details showing checks for the validity of the information chosen and reference all the sources you have used in your research.

Task 2:

Investigation Completion and Report – AO2 & AO3

Carry out safely all the experimental work detailed in your plan - AO3(a).

Check that while you are completing your experimental work, your supervisor completes a record of your safe completion of the practical and this is included with your work.

Check that risk assessments are completed for all your practical work.

Complete detailed evidence of the practical part of your plan with evidence of any changes or modifications recorded and carried out - AO2(a).

Write a scientific report on your investigation - see AO3(b), (c), (d) & (e).

To reach the highest marking band possible, include:

- the aim of the investigation and how it will be carried out
- background information and scientific research
- details of practical work carried out.

Present your data - AO2(b) & (c).

You should:

- record the data from your practical work in a suitable form
- process your data so it can be easily understood
- carry out and record any calculations needed to help interpret your data.

Include the outcomes of your investigation suitable for technicians to understand and use:

- an interpretation of the data collected
- how well the investigation achieved the aims and objectives
- a critical evaluation of the investigation.

Check your report is clear, logical and accurate. Ensure you have used scientific terminology correctly and your spelling, punctuation and grammar are correct.

Check also that you have shown an understanding of the scientific knowledge used in your investigation.

[Max marks possible for this task: 50]