

Agricultural Reports

Science as a Human Endeavour

In this task, you have the opportunity to explore and investigate a contemporary example of how agricultural science interacts with society.

You will analyse and synthesise information from different sources to explain the science relevant to the focus of their investigation, show its connections to science as a human endeavour in an agricultural context, and draw your own conclusions.

Topic selection

Select and explore a recent discovery, innovation, issue, or advancement linked to one of the topics in the Stage 2 course. Possible topics include:

guidance systems, individual animal management, spray technology, weed recognition, wool fibre analysis, precision seeding, precision watering systems, soil moisture monitoring, yield mapping, grain quality monitors, computer controlled feeding (dairies), climate control in glasshouses, robotics, unmanned aerial vehicles (drones), virtual fencing, telemetry, swath control / section control

Select an article from a recent industry publication such as the Stock Journal or an article from the Internet, which highlights connections between agricultural science and the SHE concepts. You should select one that is not being used by another student. Check its suitability with your teacher.

Map the article for the key SHE concepts using annotations, a chart, concept map or similar.

Write brief notes explaining how the discovery, innovation etc. relates to one or more key SHE concepts.

Progress check \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Folio research

Using the key SHE concept(s) you have selected, conduct further research to expand your understanding of the ideas from the article. You could search for related articles, data, fact sheets, You-tube clips, information from industry contacts etc. Your research may remain within the initial agricultural area or could extend to areas of agriculture other than those covered in the original article.

Collate your research in to a Folio format (could be digital or hard-copy)

Annotate each part of your research showing how it links to the key SHE concept(s) you have identified and the relevant agricultural concepts.

Progress check \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Report (KA2, KA3, KA4)

Prepare a report that includes use of appropriate terminology and:

* an introduction to identify the focus of the investigation and the key concept(s) of science as a human endeavour that it links to
* relevant agricultural science concepts or background
* an explanation of how the focus of the investigation illustrates the interaction between agricultural science and society.
* an explanation of the purpose, potential impact, or significance of the focus of the investigation, e.g. further development, effect on quality of life, environmental implications, economic impact, intrinsic interest
* a conclusion
* citations and referencing.

Choose the format for your report.

The report should be a maximum of 1500 words if written or a maximum of 9 minutes for an oral presentation, or the equivalent in multimodal form.

Format A – Poster

The guidelines for preparing your poster are as follows:

* A3 size, printed in colour (printing credit provided)
* Prepared using PowerPoint (one slide, select A3 in the Design tab) or other similar software
* Include a clear title and your SACE ID number
* Text should be kept to a minimum and use a large, clear font
* Relevant images, graphs, or data tables can be included. These need to labelled and referred to in the text.
* Suggested layout: portrait– 2-3 columns, landscape – 4-5 columns

The word limit for the poster is 750 words.

In small groups, display your poster and discuss it with your peers and teacher. This will happen in an informal setting, with all class members participating in the peer assessment process. You will be expected to discuss the ideas you have presented and provide information and detail to communicate your learning in this area.

The word limit for the discussion is 750 words.

Your final grade for the presentation will be a combination of the peer assessment and your teacher’s assessment.

Format B – Essay

Use the dot points under the requirements for the report as a guide to construct your essay. The essay should be a maximum of 1500 words.

Draft due date

Final due date

Performance Standards for Stage 2 Agricultural Production

| - | Investigation, Analysis and Evaluation | Knowledge and Application |
| --- | --- | --- |
| A | Critically deconstructs a problem and designs a logical and coherent agricultural investigation with detailed justification.  Obtains, records, and represents data, using appropriate conventions and formats accurately and highly effectively.  Systematically analyses and interprets data and evidence to formulate logical conclusions with detailed justification.  Critically and logically evaluates procedures and their effect on data. | Demonstrates deep and broad knowledge and understanding of a range of agricultural concepts and practices.  Applies agricultural concepts, skills, and practices highly effectively in new and familiar contexts.  Critically explores and understands in depth the interaction between agricultural science and society.  Communicates knowledge and understanding of agriculture coherently, with highly effective use of appropriate terms, conventions, and representations. |
| B | Logically deconstructs a problem and designs a well-considered and clear agricultural investigation with reasonable justification.  Obtains, records, and represents data, using appropriate conventions and formats mostly accurately and effectively.  Logically analyses and interprets data and evidence to formulate suitable conclusions with reasonable justification.  Logically evaluates procedures and their effect on data. | Demonstrates some depth and breadth of knowledge and understanding of a range of agricultural concepts and practices.  Applies agricultural concepts, skills, and practices mostly effectively in new and familiar contexts.  Logically explores and understands in some depth the interaction between agricultural science and society.  Communicates knowledge and understanding of agriculture mostly coherently, with effective use of appropriate terms, conventions, and representations. |
| C | Deconstructs a problem and designs a considered and generally clear agricultural investigation with some justification.  Obtains, records, and represents data, using generally appropriate conventions and formats, with some errors but generally accurately and effectively.  Undertakes some analysis and interpretation of data and evidence to formulate generally appropriate conclusions with some justification.  Evaluates procedures and some of their effect on data. | Demonstrates knowledge and understanding of a general range of agricultural concepts and practices.  Applies agricultural concepts, skills, and practices generally effectively in new or familiar contexts.  Explores and understands aspects of the interaction between agricultural science and society.  Communicates knowledge and understanding of agriculture generally effectively, using some appropriate terms, conventions, and representations. |
| D | Prepares a basic deconstruction of a problem and an outline of an agricultural investigation.  Obtains, records, and represents data, using conventions and formats inconsistently with occasional accuracy and effectiveness.  Describes data and undertakes some basic interpretation to formulate a basic conclusion.  Attempts to evaluate procedures or suggest an effect on data. | Demonstrates some basic knowledge and partial understanding of agricultural concepts and practices.  Applies basic agricultural concepts, skills, and practices in familiar contexts.  Partially explores and recognises aspects of the interaction between agricultural science and society.  Communicates basic information about agriculture, using some appropriate terms, conventions, and/or representations. |
| E | Attempts a simple deconstruction of a problem and a procedure for an agricultural investigation.  Attempts to record and represent some data with limited accuracy or effectiveness.  Attempts to describe results and/or interpret data to formulate a basic conclusion.  Acknowledges that procedures affect data. | Demonstrates some limited recognition and awareness of agricultural concepts and practices.  Attempts to apply one or more basic agricultural concepts, skills, and/or practices in familiar contexts.  Attempts to explore and identify an aspect of the interaction between agricultural science and society.  Attempts to communicate information about agriculture. |