Stage 2 Agricultural Production

Assessment Type 3: Production Investigation

Students individually undertake one production investigation. In negotiation with the teacher they develop and conduct their own individual practical investigation based on a primary production enterprise in agriculture. The management of the timeline for the production needs to be considered in the planning, as estimated yields may be necessary rather than actual yields.

Examples of suitable enterprises for an investigation include:

aquaculture, hydroponic crops, growing herbs, seedlings or ornamental plants in containers, growing horticultural crops in the field, intensive animal systems like poultry (meat or eggs), feedlotting sheep or cattle, pigs, bee-keeping, orchard production, native tree production, and fodder crop production

Students design a production plan. One draft of the plan should be submitted for teacher feedback and approval. Students may modify their plan in response to teacher feedback before they undertake their investigation.

Students collect both primary data and secondary data, and analyse and evaluate their findings. Students may need to collect data in different time frames and support each other in collection of primary data for the purpose of ensuring safe and ethical work practices, depending on contexts and/or resources.

Students submit their modified production plan with their production report for assessment.

Production Plan

The production plan should include:

An introduction that:

* identifies the purpose of the investigation (IAE1)
* describes the background research and significance of the aspect of agricultural production being investigated (KA1)
* identifies the specific production goals. (IAE1)

The procedure to be undertaken (IAE1), including:

* a list of resources required, such as equipment, chemicals, and facilities, and some justification of the chosen types and quantities of resources
* management strategies such as a calendar of activities
* projected gross margin
* marketing considerations, such as risk management, quality assurance requirements, and a justified strategy for selling the product
* safety considerations, such as risk assessments, and personal protective equipment (PPE) and standard operating procedures (SOPs) required
* environmental and animal welfare considerations.

Production Report

The production report should include:

* tables, graphs, and photographs for production records (such as weights, volumes, counts, health status) (IAE2)
* actual and/or projected financial records (such as income and costs, profit and loss) (IAE2)
* analysis of the records in relation to the production and financial goals (IAE3)
* evaluation of procedures and results to identify limitations of, and improvements to, the investigation (IAE4)
* a conclusion for the investigation and how the findings relate to current industry practice (IAE3)
* expression of ideas, using appropriate agricultural terminology and referencing. (KA4)

The combined word count for the production plan and the production report should be a maximum of 2000 words, if written, or the equivalent in multimodal form.

**Performance Standards for Stage 2 Agricultural Production**

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|  | | **A** | **B** | **C** | **D** | **E** |
| **Investigation, Analysis and Evaluation** | **1**  **2**  **3**  **4** | Critically deconstructs a problem and designs a logical, coherent, and detailed agricultural investigation.  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 effects on data. | Logically deconstructs a problem and designs a well-considered and clear agricultural investigation.  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 effects on data. | Deconstructs a problem and designs a considered and generally clear agricultural investigation.  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 effects on data. | Prepares a basic deconstruction of a problem and 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. | 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. |
| **Knowledge and Application** | **1**  **2**  **3**  **4** | Demonstrates deep and broad knowledge and understanding of a range of agricultural concepts.  Applies agricultural concepts 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. | Demonstrates some depth and breadth of knowledge and understanding of a range of agricultural concepts.  Applies agricultural concepts 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. | Demonstrates knowledge and understanding of a general range of agricultural concepts.  Applies agricultural concepts 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. | Demonstrates some basic knowledge and partial understanding of agricultural concepts.  Applies some agricultural concepts 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. | Demonstrates some limited recognition and awareness of agricultural concepts.  Attempts to apply agricultural concepts in familiar contexts.  Attempts to explore and identify an aspect of the interaction between agricultural science and society.  Attempts to communicate information about agriculture. |