Agricultural Practices 2019 v1.0

Sample assessment instrument

February 2019

Project — Fire branding

Information for teachers

This sample has been compiled by the QCAA to help and support teachers in planning and developing assessment instruments for individual school settings.

Schools develop internal assessments for each Applied subject, based on the learning and assessment described in the approved study plan.

Purpose of the project

This technique assesses a response to a single task, situation and/or scenario in a module of work that provides students with authentic and/or real-world opportunities to demonstrate their learning. The student response will consist of a collection of at least two different assessable components, demonstrated in different circumstances, places and times, and may be presented to different audiences, and through differing modes.

Further information about the specifications for this assessment technique can be found in the Assessment techniques section of the Agricultural Practices syllabus.

Assessment dimensions

This assessment instrument is used to determine student achievement in the following dimensions:

- Knowing and understanding
- Analysing and applying
- Planning and evaluating

In Agricultural Practices, not every objective in each dimension needs to be assessed in a single Project.

Subject	Agricultural Practices
Technique	Project
Unit number and module number and name	**Unit:** 3 **Module:** 5. Animal husbandry

Conditions	Units 3–4
Written component	500–900 words
Performance component	Schools provide students with some continuous class time to develop and demonstrate the performance component of the project.
Further information	
Duration (including class time)	4 weeks
Individual/group	Individual
Resources available	Temporary/permanent yards Access to reliable fresh water source and head bales Access to equipment for training and fire branding animals, e.g. branding irons, branding furnace, halters, lead ropes

Context

Identifying animals is an important process when implementing sustainable husbandry practices and traceability of the end product. In this module, you have learned the importance of using identification techniques to track and manage the health and welfare of individual animals. This includes appropriate handling techniques, profiling health characteristics and nutrition management to raise agricultural animals that meet market expectations.

Note: In order to undertake this task, the school has to successfully complete the *Animal ethics approval process* for the Queensland Schools Animal Ethics Committee (QSAEC) whereby it:

- has the approval of QSAEC to conduct the activity
- has registration as a scientific user with the Department of Agriculture and Fisheries (DAF)
- will follow standard operating procedures.

Task

Prepare and fire brand an animal from the school herd and evaluate your practice (a cold branding iron is substituted for the hot branding iron at the time of branding for practicality and likely herd numbers).

The task includes two components.

- Component 1: Written — Report
  Write a plan for the branding process of an animal and evaluate the effectiveness of the process.
- Component 2: Performance — Demonstration of branding skills
  Demonstrate your skills in the procedures for branding an animal.

To complete this task, you must:

Component 1: Report

- Part A: Written report (before the Performance component)
  - plan the process required to brand an animal including
    - activity plan
    - risk assessment
    - safety measures.
- Part B: Written report (after the Performance component)
  - complete a self–evaluation checklist (refer to stimulus)
  - collect your teacher–evaluation checklist (refer to stimulus)
  - evaluate the effectiveness of branding your animal based on your
    - plan
    - performance
    - decision-making processes.

Component 2: Demonstration of branding skills

- apply knowledge, understanding and skills while demonstrating a range of procedures for branding an animal, including
  - equipment use and management
  - safety procedures
  - management of animal health and welfare.

Checkpoints

☐ Term [X] Week [X]/[Date]: Complete plan and risk assessment in consultation with teacher

☐ Term [X] Week [X]/[Date]: Check progress on restraining and branding procedures

☐ Term [X] Week [X]/[Date]: Demonstrate restraining and branding an animal

☐ Term [X] Week [X]/[Date]: Submit draft of written report

☐ [Due date]: Submit written report

Note: Checkpoints are conditional and depend upon animal readiness, experience of people managing the animal, opportunities for working with animals at school, and animal breed.

Authentication strategies
Your teachers will use ways to check that the work you are assessed on is your own work.

- Discuss with your teacher or provide documentation of your progress at indicated checkpoints.

- Your teacher will observe you completing work in class.

- Take part in interviews or consultations with your teacher as you develop your response.

- Submit drafts and respond to teacher feedback.

- Submit the declaration of authenticity.

- Your results may be cross-marked by a teacher from another class.

Stimulus

Evaluation checklist — Fire branding

Student name: _____

Step	Description	Yes	No	Comments
Equipment	Branding furnace used appropriately[1]			
	Required brands prepared[1]			
Animal is secure	Animal is appropriately restrained[2]			
Applying brand	Branding iron is removed from furnace when the appropriate colour[3]			
	Branding iron is allowed to cool to the appropriate colour[3]			
	Branding iron is applied to the correct position[4]			
	Branding iron is applied for an appropriate time with sufficient pressure[4]			
	Brand is clear[4]			
	Animal released[5]			

Teacher notes only (Remove from student copy)

[1]The branding furnace is already lit with branding irons heating. Each student explains the ordered steps of lighting the furnace and checking that the required branding irons are placed appropriately in the furnace.

[2]Students being assessed are responsible for moving their animal into the crush, restraining it in the head bale and applying the flank bar.

[3]The branding iron is removed from the furnace when heated to the appropriate colour and allowed to cool. When students decide the branding iron has reached the appropriate colour for branding, they notify their teacher and the hot branding iron is substituted for a cold branding iron to perform the branding procedure. The student returns the hot branding iron to the furnace for subsequent students at the end of the process.

[4]A cold branding iron is used due to not having enough animals for each student to fire brand. The cold branding iron is applied squarely to their animal's hide in the correct position, with sufficient pressure, for an appropriate time (roughly 3–5 seconds) to allow a visible impression of the brand to be seen on the animal's hide. Due to using a cold branding iron, the brand will be clear and not golden brown.

[5]The branded animal is released into a separate pen.

Note: The above method was chosen as there may not be enough animals to fire brand and it is practical and safer for assessment purposes. If students incorrectly restrain the animal, or the branding iron is not at the appropriate temperature, or it is not put on in the correct position, the safety and welfare of the animal is not compromised. Furthermore, the steps of the evaluation checklist could be assessed across multiple lessons, e.g. students could be assessed on lighting the branding furnace in a lesson before branding the animal.

Instrument-specific standards matrix

	Standard A	Standard B	Standard C	Standard D	Standard E
Knowing and understanding	The student work has the following characteristics: • precise and efficient demonstration of procedures to complete tasks in agricultural activities.	The student work has the following characteristics: • precise demonstration of procedures to complete tasks in agricultural activities.	The student work has the following characteristics: • demonstration of procedures to complete tasks in agricultural activities.	The student work has the following characteristics: • demonstration of skills related to procedures relevant to agricultural activities.	The student work has the following characteristics: • demonstration of agricultural skills.
Analysing and applying	The student work has the following characteristics: • considered and systematic application of knowledge, understanding and skills relevant to agricultural activities • use of appropriate language conventions and features for coherent and clear communication of agricultural information.	The student work has the following characteristics: • systematic application of knowledge, understanding and skills relevant to agricultural activities • use of appropriate language conventions and features for clear communication of agricultural information.	The student work has the following characteristics: • application of knowledge, understanding and skills relevant to agricultural activities • use of appropriate language conventions and features for communication of agricultural information.	The student work has the following characteristics: • partial application of knowledge, understanding and skills relevant to agricultural activities • use of basic language conventions and features for communication of agricultural information.	The student work has the following characteristics: • partial application of knowledge, understanding or skills • use of basic language conventions and features for partial communication of agricultural information.
Planning and evaluating	The student work has the following characteristics: • comprehensive planning of processes for agricultural activities • comprehensive evaluation of processes and decisions regarding safety and effectiveness.	The student work has the following characteristics: • detailed planning of processes for agricultural activities • detailed evaluation of processes and decisions regarding safety and effectiveness.	The student work has the following characteristics: • planning of processes for agricultural activities • evaluation of processes and decisions regarding safety and effectiveness.	The student work has the following characteristics: • partial planning of processes for agricultural activities • consideration of processes and decisions regarding safety and effectiveness.	The student work has the following characteristics: • collection of agricultural information • statements about processes and/or decisions regarding safety or effectiveness.